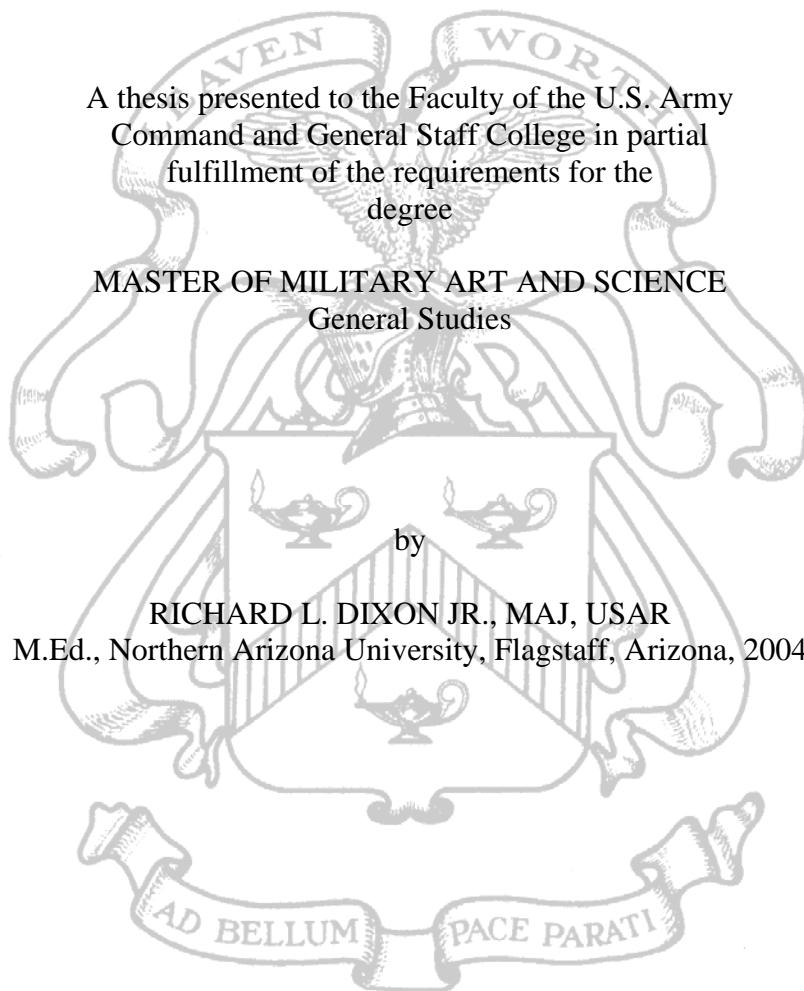


PTSD TYPE SYMPTOMS AND CGSC CLASS 08-01, A STUDY OF FIELD GRADE  
OFFICERS AND IMPLICATIONS FOR THE FUTURE



Fort Leavenworth, Kansas  
2008

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The opinions and conclusions expressed herein are those of the student author and do not necessarily represent the views of the U.S. Army Command and General Staff College or any other governmental agency. (References to this study should include the foregoing statement.)

## ABSTRACT

PTSD TYPE SYMPTOMS AND CGSS CLASS 08-01, A STUDY OF FIELD GRADE OFFICERS AND IMPLICATIONS FOR THE FUTURE, by MAJ Richard L. Dixon, Jr., 93 pages.

With the emergence of the Global War on Terror (GWOT), the mental illness of Post Traumatic Stress Disorder (PTSD) is increasingly identified in returning veterans. A 2006 mental health study released by the Pentagon found 11% of returning OEF veterans and 19% of returning OIF veterans have mental health issues. Of the veterans sampled, 5% were Army Officers and 2% were Marine Officers. Thus, the primary research question was: Are the combat veterans of CGSS Class 08-01 representative of the Army's statistics on returning veterans with PTSD type symptoms? Using the Post Traumatic Stress Disorder Checklist-Military Version (PCL-M) and a demographic questionnaire, a survey sample of 297 field grade officers from a population of 584 combat veterans found 35% of single tour OEF veterans and 41% of single tour OIF veterans had PTSD type symptoms. 41% of multiple tour veterans had PTSD type symptoms. 50% of the survey sample believed mental health counseling would damage their careers and the percentage increased to 70% among those with PTSD type symptoms.

## ACKNOWLEDGMENTS

I would like to dedicate this thesis to my brother Greg, whose long battle with PTSD ended November 9, 2006. He provided the inspiration for my research and without his support in my darkest hour this thesis would never have come to fruition.

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## ACRONYMS

ASD- Acute Stress Disorder

APA-American Psychiatric Association

APFRI- the Army Physical Fitness Research Institute

CAB- the Combat Action Badge

CAR- the Combat Action Ribbon

CBT- Cognitive Behavioral Therapy

CIB- the Combat Infantry Badge

CMB- the Combat Medic Badge

COSC- Combat and Operational Stress Control

CPT- Cognitive Processing Therapy

DoD- the Department of Defense

EMDR- Eye Movement Desensitization and Reprocessing

GWOT-The Global War on Terror

OEF-Operation Enduring Freedom

OIF-Operation Iraqi Freedom

PCL-M- the PTSD Checklist, Military version

PDHRA- the Post-Deployment Health Re-Assessment

PICK- Premarital Interpersonal Choices and Knowledge

PTSD- Post Traumatic Stress Disorder

SSRI's- Selective Serotonin Reuptake Inhibitors

TBI- Traumatic Brain Injury

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## CHAPTER 1

### DEFINING THE PROBLEM

With the emergence of the Global War on Terror (GWOT) and the subsequent deployment of troops into harms way, the mental illness of Post Traumatic Stress Disorder (PTSD) has become increasingly identified in veterans of the current conflicts in Afghanistan and Iraq. PTSD is not a new phenomenon in the history of war. Over twenty centuries ago, Homer described in the *Iliad* the psychological devastation of Achilles as a result of his combat experiences (Schiller 2003). The current definition of PTSD originated in 1980 during the post Vietnam War era when the American Psychiatric Association (APA) added PTSD to its third edition of the Diagnostic and Statistical Manual of Mental Disorders (DSM-III). This was significant in that the APA recognized that the cause (etiological agent) of PTSD was external to the individual (i.e. a traumatic event), rather than an inherent individual weakness (i.e. a traumatic neurosis).

Unfortunately, the stigma of PTSD as a “weakness” still exists within the military. It is a major deterrent to those seeking treatment, and may be a reason why PTSD remains under-reported. According to CBS news in a pentagon study (March 1, 06) 11% of returning Operation Enduring Freedom (OEF) veterans and 19% of returning Operation Iraqi Freedom (OIF) veterans have mental health issues. The survey population was based on a sampling of soldiers and Marines. Only 5% of the soldiers sampled were officers and only 2% of the Marines sampled were officers (US Army Medical Command 2006). The Department of Defense’s Task Force on Mental Health cited the fear of ridicule and a damaged career as reasons why service members are not acknowledging mental health problems (Yen 2007). The Task Force reported 38% of

soldiers and 31% of Marines report psychological concerns after returning from deployment (Yen 2007).

A key factor identified in countering combat stress is leadership. In the previously identified example of Homer's *Illiad*, Achilles was verbally insulted by the Greek commander Agamemnon. His commander also seized Achilles' prized war prize, the girl Briseis (Schiller 2003). During the OIF 05-07 Army Mental Health studies, soldiers with high combat experience screened positive for PTSD 20% of the time when they viewed their leaders favorably. When high combat experienced soldiers viewed their leaders unfavorably, they screened positive for PTSD 40% of the time. A similar relationship held true for Marines: 19% PTSD rate with favorable leadership, and 44% for unfavorable leadership. Soldiers/Marines were specifically questioned about how commanders treated individuals that had received Combat and Operational Stress Control (COSC) treatment or other behavioral health care and how they were received upon returning to the unit. Leaders need to understand PTSD, what it is, and what it is not, and then provide a positive command environment before they can help subordinates. One Iraq war veteran, Cpl Timothy Bredberg, was quoted on his command climate in the Washington Post: "Commanders were standing there saying if you check the wrong thing, you will be considered crazy and get kicked out." (Tyson 2007)

Officers bear the brunt of the inherent stress in implementing leadership decisions. Subsequently, the divorce rate among officers tripled, from a rate of 1.9 percent in 2002, to a rate of 6 percent in 2004 (MSNBC 2005). In response, the Army has initiated a number of support group programs, to include: The Strong Bonds marriage education program, P.I.C.K. (Premarital Interpersonal Choices and Knowledge), and The Building

Strong and Ready Families program. For 2005, officer divorce rates fell to 2.3 percent (DoD 2006). No causal data exists on exactly why the rates have fallen. It is unknown if soldiers are using more counseling services, or whether a plateau has been hit with only the strongest of marriages remaining.

One of the missions of the Command and General Staff College (CGSC) is preparing field grade officers for the next ten years of their careers. Understanding PTSD needs to be one of the skills that graduating students take from the course. It is also essential that combat veterans within the CGSS identify whether or not they have signs and symptoms associated with PTSD, and if so, seek help without fear of stigma. The hallmark of any good leader is personal introspection. If leaders cannot conduct an honest self-analysis of PTSD symptoms within themselves, they will lack the credibility and insight to require their subordinates to do the same thing. Such introspection may also improve their marriages.

An Army study posted November 14, 2007, found that one out of five active-duty Army soldiers and more than 40% of Army reservists require mental health treatment (Tyson 2007). The study found that soldiers are far more likely to report mental health problems three to six months after returning from combat (Tyson 2007). With 73% of Class 08-01 recognized as combat veterans with recent tours (33% with more than one combat tour) and the historic low sampling numbers of officers in PTSD studies, it prompts the primary research question:

Are the combat veterans of CGSC Class 08-01 representative of the Army's statistics on returning veterans with PTSD symptoms?

Of importance is not only differences between OIF and OEF, but whether the symptoms

are related to close combat and how the veterans feel about mental health counseling.

The secondary research questions posed are:

1. Do CGSC students with multiple combat tours, have higher rates of PTSD type symptoms compared with students with only one combat tour? Is it simply a matter of more tours causing more stress, or is it something else?
2. What are the CGSC student PTSD type symptom percentage rates by gender, service, and combat theater? Are the Army and Marines the highest? Do reservists have higher rates than their active duty counterparts?
3. What is the CGSC student divorce rate? Is it at the 2% low or at the 6% high? Are the divorces prior to deployment, or post deployment?

#### Assumptions

One assumption of this thesis is that of the nearly 600 combat veterans in Class 08-01, many were company grade officers during their combat tours, and exposed to traumatic events at the tactical level. It is also assumed that many veterans' tours previous to CGSC was a combat deployment. This assumption may prove even more accurate with those individuals who have multiple combat tours. Another assumption is that a high percentage of the combat veterans will participate in the anonymous research survey and will answer the questions honestly.

A significant institutional assumption was that the survey instrument would have little difficulty in the approval process. Due to the fact this was the first thesis on PTSD in CGSC's history, new ground was being broken. The Director, Graduate Degree

Programs (DGDP) understandably took an interest in the topic and called a special meeting to discuss the survey instrument.

One of the stipulations made by the DGDP was to remove a question from the Demographic Survey concerning whether a respondent had ever thought about suicide. The concern was if someone responded “yes”, there was no way to help them because of the anonymous nature of the survey. Thus, the question was removed. Another stipulation was a signed document by local Veterans Administration (VA) psychologists, stating they supported the use of the PCL-M and considered it a low risk survey instrument.

While preparing documents for the DGDP, it was discovered that the Army Physical Fitness Research Institute (APFRI), was at CGSC. One of the documents they were requiring participants (CGSC students) to fill out was the PCL-M with the respondent’s name on it. This was a voluntary physical fitness study and the mental health piece was an additional requirement. The fact that APFRI uses the PCL-M, demonstrated the utility of the survey instrument.

A common assumption is that it is more harmful to question people about PTSD, than it is to ignore it. Nothing could be further from the truth. Untreated PTSD becomes more ingrained and less responsive to treatment (O’Dell 2007). It can also lead to failed personal relationships, career problems, substance abuse (self-medication), depression and even extreme acts such as suicide or homicide (O’Dell 2007). Once an individual manifests chronic PTSD adaptation problems, evidence shows these problems remain chronic for life (Prigerson, Maciejewski, and Rosenheck 2001). The symptoms are also resistant to treatment that works for acute PTSD (Schnurr et al. 2003) The Army has

recognized that they need to intervene earlier “before symptoms become chronically entrenched” (Tyson 2007).

One way to increase honest responding and obtain the visibility needed, would be to obtain endorsement from the CGSC Commandant on the importance of participating in the survey from a wellness perspective as well as an educational/professional development perspective. Such an endorsement was not used in this thesis, but may be a viable course of action for future CGSC students in an effort to increase PTSD awareness. Another assumption is if the survey creates anxiety among respondents, they or their peers will identify the need to seek help and follow through by making an appointment with a mental health professional. Quite often, an individual is in denial or fears seeking help. It is usually someone close to the individual that takes that first step in getting help. For peers or family to take that step, they need to know more about PTSD symptoms. The PCL-M deals specifically with those symptoms.

### Summary

PTSD is prevalent within returning combat veterans. The earlier estimates of 11 to 19% are giving way to estimates of 20 to 40% of returning veterans needing mental health treatment (Tyson 2007). With only 2 to 5% of Army/Marine officers being surveyed for PTSD (US Army Medical Command 2006), this thesis is designed to survey the unique population of field grade officers at CGSC; a population that has been under represented in previous research. It is also intended to educate CGSC students and their families on the symptoms associated with PTSD. Students are free to make a copy of their completed PCL-M and take it home to discuss with family members or take it to a

mental health practitioner for further analysis. The ultimate goal is to bring PTSD into the open and ask the questions about symptoms, rather than ignore the situation. .

## CHAPTER 2

### LITERATURE REVIEW

There is extensive material available concerning combat related PTSD. Books, research articles/publications and documents, survey studies, and internet sites are a few of the sources in which material can be found. A number of longitudinal studies have been conducted on Vietnam veterans, since they were the population that originally resulted in the “PTSD” nomenclature, and have been available to clinicians the longest. Thus, it is no surprise that Vietnam era PTSD research is more extensive than GWOT research. However, two recent studies, the DoD Task Force on Mental Health and the RAND Corporation have produced two significant views on PTSD that will be examined later in this review.

There are numerous sources at the Department of Veterans Affairs (VA)-National Center for Post-Traumatic Stress Disorder website. Definitions of PTSD, various treatment strategies, and current research articles are among the many references available. This literature review is divided into the following categories: History, What is PTSD?, Subtypes of PTSD, PTSD Treatment, Prevalence, and Recent Studies.

#### History

PTSD was formally recognized in 1980 in the Diagnostic and Statistical Manual of Mental Disorders Volume III (DSM-III). That is not to say the phenomenon did not exist prior to 1980. PTSD has gradually evolved within the psychiatric community. In DSM-I, published in 1952, “stress response syndrome” was listed under a general category of “gross stress reactions” (Beal 1997). In DSM-II from 1968, “trauma related”

disorders were characterized under “situational disorders” (Beal 1997). With DSM-III, “PTSD” was coined, and identified as a subcategory of anxiety disorders. Controversy arose over whether PTSD was an anxiety or a dissociative disorder. An anxiety stress disorder is defined as a symptomatic reaction to a traumatic event (Frey 2006). A dissociative disorder is characterized by a disruption in consciousness, memory, identity, or perception (Heffner 2004). In the current DSM-IV published in 1994, the Advisory Subcommittee on PTSD unanimously classified PTSD as a new stress response category (Beal 1997).

Prior to PTSD, it was known as “Soldier’s Heart” or “Soldier’s Melancholy” during the Civil War (Le Fanu 2003). “Da Costa’s Syndrome”, named after Dr. J. M. Da Costa in 1874, was used to describe anxiety in Civil War veterans. It was believed to be a weakness of the heart. This definition was still being used during early World War II (Bishop 1942). It was also known as Shell Shock, from World War I (Grafton 1917). It was during WWII and the Korean War that it became known as “Battle Fatigue” or “Combat Exhaustion” (Hyams 2005).

Sigmund Freud’s model of neurosis, Seduction Theory, is credited with the paradigm that post traumatic behavior was the result of external events (Wilson 1994). This influenced stress response definitions in DSM-I and DSM-II (Wilson 1994). It was psychologist Abraham Kardiner, a student of Freud that actually studied war neuroses as part of psychoanalytic theory and wrote what are considered the seminal psychological works on PTSD, *Traumatic Neuroses of War* and *War Stress and Neurotic Illness* (Beall 1997). Kardiner’s research helped re-define DSM-III and DSM-IV diagnostic criteria (Boquinha-ga 2006).

After the Vietnam War, Congress mandated the National Vietnam Veterans' Readjustment Study (NVVRS) to study the prevalence of PTSD and other psychological problems of combat veterans (Price 2007). The study found that approximately 830,000 male and female Vietnam veterans, or 26% of those that served, had symptoms associated with PTSD (Price 2007). The NVVRS is considered one of the most representative samples of Vietnam veterans researched to date (Price 2007).

Though the Persian Gulf War of 1991 was brief, veterans reported signs and symptoms associated with PTSD. Rates of incidence vary from 9% to 24% (Tull 200). Studies have been conducted concerning the physical ailments of Gulf War Syndrome and PTSD. Much controversy still exists in the matter with arguments about whether PTSD is the cause of Gulf War Syndrome or whether Gulf War Syndrome is related to chemical or biological exposure. The December 2005 Research Advisory Committee on Gulf War Veterans' Illnesses ruled out PTSD and other psychosomatic causes for Gulf War Syndrome (Binns 2005).

With the advent of the Global War On Terror (GWOT), PTSD is once again showing up in combat veterans, making it no different from previous wars. Despite the established protocols in DSM-IV and the experience of the civilian mental health community, DoD clinicians are not using the *Clinical Practice Guidelines for PTSD* published by the Department of Veterans Affairs (Robinson 2006). Instead, the military is using DD Form 2796, the Post Deployment Health Assessment. Unfortunately, this is not administered by health clinicians, and service members are not receiving the one on one contact time required to properly diagnose PTSD (Robinson 2006). Without more

refined mental health screening procedures, the DoD, the VA, and the rest of society may have difficulties adjusting to the influx of PTSD prevalence in society.

### What is PTSD?

The most frequently quoted definition of PTSD is by Holocaust survivor and author, Victor Frankl, in his book *Man's Search for Meaning*. He wrote: "An abnormal reaction to an abnormal situation is normal behavior" (Scurfield 2002). This quote is from his 1946 book, it is still relevant today, and offers the best definition in understanding PTSD. Clinically speaking, the DSM-IV outlines the specific guidelines for diagnosing PTSD. A person must experience a traumatic event in which two things occur. First, the person witnesses, experiences or is confronted with an event or events that involved actual or threatened death or serious injury, or a threat to the physical integrity of self or others (Field 2005). Secondly, the person's response was intense fear, helplessness or horror (Field 2005). From this baseline traumatic event, the person then has to have a certain number of symptoms present for a month or more in three categories: 1.) persistent re-experiencing of the traumatic event, 2.) persistent avoidance of stimuli associated with the traumatic event and numbing of general responsiveness, and lastly, 3.) persistent symptoms of increased arousal or hypervigilance (Field 2005).

There are three categories of PTSD: acute, chronic, and delayed onset. PTSD symptoms usually begin within three months after the trauma, although there may be a delay of months or even years, before symptoms appear. In acute PTSD, symptoms appear within and last less than six months. With chronic PTSD, the symptoms last longer than six months. Delayed onset PTSD occurs when symptoms first appear at least six months after the traumatic event. Delayed-Chronic PTSD occurs when symptoms

appear after six months and last longer than six months. With DSM IV, a new subtype of PTSD was defined, Acute Stress Disorder (ASD). ASD occurs when onset from the trauma and resolution of the symptoms happens within four weeks or less (Whitney 2002).

The VA has extensive PTSD statistics available. As of 2006, over 184,000 Iraq and Afghanistan veterans have filed VA claims with 35% falling into the “Mental” category. One frustrating aspect of these statistics is that only those individuals that admit a problem in a survey or seek help are counted. The stigma of PTSD as a mental health issue may be preventing an untold number of veterans from admitting problems or seeking help. This can unfortunately, lead to greater problems later on.

The Army’s Mental Health Assessment Team (MHAT) data (four different reports), are the primary source for PTSD related data and GWOT. The MHAT data cites the current range of statistics for PTSD as 11% for OEF and 19% for OIF veterans. The National Center on PTSD reports that 40% of OEF/OIF veterans have or will acquire PTSD. An important distinction between the statistics of these two research groups exists. The MHAT is gathering data in theater. It does not reflect those individuals that may have a delayed onset of PTSD.

The purpose of this thesis is to survey combat veteran, field grade officers at CGSC to determine prevalence of PTSD in this unique subgroup. It is a study that has never been conducted before, and could be expanded upon through a longitudinal study or a regular survey conducted with each incoming CGSC class. Databases such as these are important for the study of PTSD within the military. Most importantly, students

taking the survey may recognize that they potentially have PTSD and seek help. At the very minimum, the survey would help increase PTSD awareness at the student level.

To understand the symptoms of PTSD, the biology of PTSD must be examined. PTSD is based on the body's "fight or flight" response. This response is the body's primitive, automatic, innate reaction to fight or flee from perceived danger (Neimark 2007). The fight or flight response was first discovered by Harvard physiologist Walter Cannon in his book, *Bodily Changes in Pain, Hunger, Fear and Rage* in 1930. Cannon is credited with contributing to the development of modern psychosomatic medicine (Lescouflair 2003).

The fight or flight response is triggered within the amygdala portion of the brain, and sends a signal to the hypothalamus (See Figure 3, Morris and Maisto 2001). The amygdala is considered the "fear center" of the brain (SAVAHCS [2006?]). It is a key area in learning what to fear, feeling fear, and in expressing fear, anger and other emotions (Morris and Maisto 2001). It sends a signal to the hypothalamus when potential danger is perceived (Morris and Maisto 2001). The hypothalamus normally controls appetite, thirst, temperature and other basic body functions (Morris and Maisto 2001). When it receives a signal from the amygdala, it sends a "red alert" to the pituitary gland (Morris and Maisto 2001). The pituitary gland in turn, sends a signal to the adrenal gland (Morris and Maisto 2001). David Grossman in his book *On Combat*, gives a good metaphorical description of this process. Not surprisingly, PTSD sufferers have an over active amygdala (SAVAHCS [2006?]). With the amygdala activated, the prefrontal cortex in the frontal lobe shuts down because the two systems cannot operate at the same

time (Marks and Perkins 2007). This has serious implications since the prefrontal cortex is responsible for rational thought and decision making (Marks and Perkins 2007).

The overactive amygdala is what creates the “hyper arousal” symptom in PTSD sufferers. The problem is that the amygdala causes the brain to establish a connection between fear producing situations from the past (i.e. traumatic events) with a stimulus in the present that may be safe (SAVAHCS [2006?]). The amygdala and hippocampus are key components of human memory. The hippocampus is responsible for learning new information as well as remembering, whereas the amygdala learns what to fear (Morris and Maisto 2001). With PTSD, the hippocampus actually decreases in mass due to the over reactive amygdala (SAVAHCS [2006?]). Depending upon the damage to the hippocampus, PTSD sufferers are unable to effectively incorporate new information after their trauma and their expectations of the world can be fundamentally altered (Weber 1999).

Dr. J. Douglas Bremer was the first researcher to use magnetic resonance imaging (MRI) of the brain in a PTSD study. He found that combat veterans had an 8% reduction in volume in their right hippocampus (Bremer 1999). This volume reduction was associated with deficits in short-term memory in PTSD patients (Bremer 1999). Dr. Bremer also found that PTSD affected the medial prefrontal cortex of the brain. Imaging of the brain while inducing PTSD related stressors to patients showed an inhibition of the medial prefrontal cortex to react to signals from the amygdala (Bremer 1999). In short, the brain no longer responded to fear.

Depression is often diagnosed in those that have PTSD. The depression is “comorbid” or coexisting with the PTSD. In a study by M. M. Simonovic in Yugoslavia,

depression was found to have a significant influence on the course and prognosis of PTSD (Korn & Gutman 2002). The depression actually was viewed as a “higher-level adaptation” to the numbing of emotions (affective constriction) that is characteristic of PTSD (Korn & Gutman 2002). In other words, feeling down is better than not feeling at all. Dr. Rutkowski of Poland conducted a study on PTSD and nightmares, a commonly reported symptom of PTSD. He found a statistical significance and correlation between a lack of nightmares in PTSD patients with high levels of depression versus PTSD patients without depression (Korn & Gutman 2002).

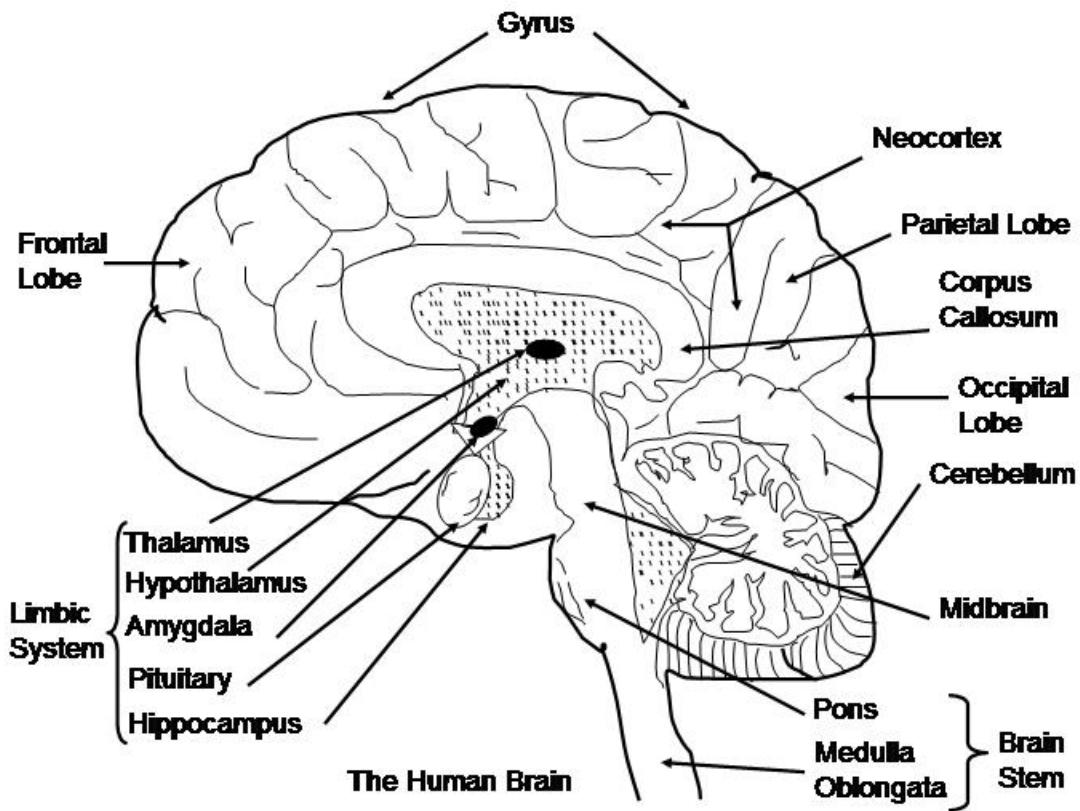


Figure 1. The Human Brain

Source: figure created by author based on thesis research from Morris and Maisto

2001

### Subtypes of PTSD

The first type of trauma-induced stress disorder is Acute Stress Disorder (ASD) as recognized by DSM-IV. ASD shares many of the same symptoms of PTSD, emotional numbness, intrusive memories, hyper arousal, and avoidance of anything that may remind a person of the trauma (NCPTSD 2007). Symptoms usually occur two to four days after the trauma and can last up to four weeks. If symptoms persist after four weeks and are severe enough, then the likely diagnosis is PTSD (Frey 2002). If the symptoms last

longer than four weeks but are not severe enough to meet the diagnosis of PTSD, then the diagnosis may be changed to adjustment disorder (Frey 2002).

When PTSD is diagnosed, it falls into three categories recognized by the DSM-IV. When the severity of symptoms lasts from one to three months, it is categorized as Acute PTSD (McCabe & Antony 2002). When PTSD symptoms last longer than three months, it is known as Chronic PTSD (Russell 2007). Of those individuals that develop PTSD, approximately 30% develop chronic PTSD, with symptoms persisting over a lifetime (McAtamney 2007). The third official category of PTSD is Delayed Onset. This is when PTSD symptoms do not begin until at least six months after the traumatic event (Russell 2007).

A new category of PTSD that is not currently recognized by DSM-IV, is Complex PTSD or C-PTSD. Dr. Judith Herman of Harvard University defines C-PTSD as stemming from repeated instances of trauma over a prolonged period, such as domestic violence or ongoing childhood abuse in which the victim is under the complete control of another (Hien 2004). It includes a broader range of symptoms to include: self-harm, suicide, dissociation (“losing time”), problems with relationships, memory, sexuality, health, anger, shame, guilt, numbness, loss of faith and trust, and feeling damaged (Hien 2004).

Victims of chronic abuse are sometimes mistaken as someone with “weak character” (Whealin 2005). In the past, they have been misdiagnosed as having Borderline Dependent, or Masochistic Personality Disorder (Whealin 2005). This tends to place blame on the victims for the symptoms they are experiencing due to victimization. C-PTSD captures the severity of symptoms not recognized in the current

DSM-IV definition of PTSD. It remains to be seen if C-PTSD will be included in the next DSM revision.

### PTSD Treatment

There are several types of treatment for PTSD. Some are taken individually, in succession, or simultaneously. It depends upon the individual's specific needs and the expertise of their mental health professional. The primary treatments are: Cognitive Behavioral Therapy (CBT), exposure therapy, Eye Movement Desensitization and Reprocessing (EMDR), medication, group therapy, psychotherapy, and family therapy (NCPTSD 2007).

The cornerstone in using CBT for PTSD treatment is exposure to traumatic thoughts and feelings (Otto 2002). Exposure allows patients to discriminate between traumatic memories and appropriate assessments of the present (Otto 2002). Exposure therapy is combined with cognitive restructuring. The concept is to help the individual challenge and modify erroneous cognitions, by reducing negative emotional reactions, and promote effective coping skills (Cahill, and Foa 2007).

As mentioned previously, exposure therapy is often combined with CBT. However, it was Dr. Terence Keane that pioneered the use of exposure therapy in the 1980's for treating PTSD in Vietnam War veterans (APA 2003). Exposure therapy involves carefully exposing a patient to prolonged and repeated images of the trauma until the images no longer cause severe anxiety (APA 2003). In the past, this meant either imaginal or "in vivo" techniques (Keane & Kaloupek 1996). Imaginal involved the patient imagining events or situations related to their trauma. In vivo ("within the living") involves exposure to a physical place or object that relates to the patient's

trauma. Since the early 1990's, some psychologists have been using virtual reality technology as a middle ground between imaginal and in vivo exposure therapy (Winerman 2005). This is particularly useful in simulating combat conditions, whereas the imaginal technique could only be previously used. In 1990, a congressionally commissioned survey of Vietnam veterans found 30.9% of males and 26.9% of females had a lifetime prevalence of PTSD (Bergfeld 2006). Thus, the Virtual Vietnam therapy program was created in 1997 (PCN 2007). Dr. Dennis Wood has been conducting virtual reality exposure therapy at the San Diego Naval Hospital. He recently presented a case in November 2006 to the Association of Military Surgeons of the United Sates, in which a patient was able to lower his stress symptom score on the PCL-M to below the "strict" criteria level for a PTSD diagnosis (PCN 2007).

EMDR was developed by Francine Shapiro in 1987 (HP 2006). It is based on the theory that traumatic memories that are not processed properly cause blockages that can cause PTSD and that involuntary eye movement can reduce negative thoughts (HP 2006). It is an eight step process that involves the pairing of cognitive restructuring and hand movement, lights or tapping sounds. Its effectiveness has been called into question, due to the lack of empirical evidence to support it (Lilienfeld 1996). Controlled research has shown that the visual tracking dimension of EMDR is unnecessary and irrelevant to whatever benefits the patient may receive (Barrett 2003). According to the National Center for PTSD, research comparing EMDR and CBT, shows "significantly" better results with CBT and greater sustainability.

With the exception of sleep disturbances, selective serotonin reuptake inhibitors (SSRIs), can treat all PTSD symptoms (Panzarino 2002), though some believe that they

are not that “spectacular” (Carlat 2004). Other categories of medications are used, but the greatest and largest evidence for efficacy is with SSRIs (Stevens 2006). Currently, the University of California at San Francisco (UCSF) is testing D-cycloserine (DCS), a medication used for years to treat tuberculosis, as a possible treatment for PTSD (Tokar 2006).

Psychotherapy (talk therapy), group therapy, and family therapy in PTSD treatment all involve the use of interpersonal and relational dynamics to deal with the problems PTSD patients and those around them face. Recent evidence has shown that the use of psychotherapy early after a traumatic event can significantly improve a patient’s recovery (Shalev 2007). An important aspect of group therapy and PTSD is for people to learn that others share the same symptoms and that they are not alone (Gorman 2003).

A new emerging treatment for PTSD is Cognitive Processing Therapy (CPT) (NCPTSD 2007). Originally developed for the treatment of rape and violent crime victims, CPT traces its origins to the cognitive studies of Beck and Emery in 1985 (NCPTSD 2007). The principle difference between CPT and Cognitive Behavioral Therapy (CBT), is the initial focus on the trauma incident versus the individual’s current maladaptive beliefs (NCPTSD 2007). CPT relies on the Socratic style of therapy by verbalization of an individual’s reasoning process, and then challenging those beliefs. (NCPTSD 2007).

The VA is currently undergoing a two-year transition process to CPT with the goal of having at least one CPT trained therapist per VA hospital. CPT will be a twelve-session treatment process that can be administered in individual or group settings. The

current research data is compelling. A trial study within the VA found that 40% of CPT participants had a remission in their PTSD after treatment (NCPTSD 2007).

### Prevalence

The National Comorbidity Survey-Replication (NCS-R) of 2005 estimates lifetime PTSD prevalence of Americans at 7.8%; 10.4% for women and 5% for men (Tull 2007). For any combat veterans, non-war specific, the lifetime estimate is 39% (Friedman 2006). The percentages broken down by wars: Vietnam 30%, Gulf War 10%, Somalia 8%, Iraq and Afghanistan 17% (Regan et al 2005). Individually, Afghanistan veterans are listed at 6-11% and Iraq Veterans are 12-20% (Friedman 2006). An examination of the 2006 studies conducted by the U.S. Army Medical Command, show only 5% of the Army sampled were officers and only 2% of the Marines sampled were officers. PTSD data available on military officers is scarce. There is a movement underway to *educate* military officers about PTSD in order to counter how some soldiers have been treated by superiors (Slevin 2007). Major General (MG) Gale Pollock, the chief of the Army Nurse Corps, has vowed that nurses returning from Afghanistan and Iraq will not suffer from PTSD as did their predecessors in Vietnam (Boivin 2005). The key way to avoid such suffering is getting nurses to talk about their traumatic experiences.

### Recent Major PTSD Studies

#### Department of Defense Task Force on Mental Health

The DoD TF on Mental Health (DODTFMH) was established in May 2006 and comprised of seven civilians and seven military members, all with mental health

expertise. The Task Force was launched to assess the psychological health of service members and their families within the DoD community and resulted in a one hundred page report.. Previous data gathered from the PDHRA (Post-Deployment Health Re-Assessment) indicated that 38% of soldiers and 31% of marines are reporting psychological symptoms 90 to 120 days after their return from combat (DODTFMH 2007). With the goal of improving and maintaining the mental health of the military, the Task Force established the following vision:

1. A culture of support for psychological health, wherein all service members and leaders will be educated to understand that psychological health is essential to overall health and performance, will be fostered. Early and non-stigmatizing psychological health assessments and referrals to services will be routine and expected.
2. Service members and their families will psychologically be prepared to carry out their missions. Service members and their families will receive a full continuum of excellent care in both peacetime and wartime, particularly when service members have been injured or wounded in the course of duty.
3. Sufficient and appropriate resources will be allocated to prevention, early intervention, and treatment in both the Direct Care and TRICARE Network systems, and will be distributed according to need.
4. At all levels, visible and empowered leaders will advocate, monitor, plan, coordinate and integrate prevention, early intervention, and treatment. (DODTFMH, 2007, ES-2)

The Task Force found that current efforts in achieving the goals established in their vision were not being met. The principle reason was that the military health care

system does not have the fiscal funding, nor the qualified personnel to support psychological health care in peacetime, let alone the current wartime environment. In relationship to each point of the Task Force's vision, the following impediments were identified:

1. Building a culture of support for psychological health:
  - Stigma in the military remains pervasive and often prevents service members from seeking needed care.
  - Mental health professionals are not sufficiently accessible to service members.
  - Leaders, family members, and medical personnel are insufficiently trained in matters relating to psychological health.
  - Some Department of Defense policies, including those related to command notification or self-disclosure of psychological health issues , are overly conservative.
  - Existing processes for psychological assessment are insufficient to overcome the stigma inherent seeking mental health services.
2. Ensuring a full continuum of excellent care for service members and their families:
  - Significant gaps in the continuum of care for psychological health remain, specifically related to which services are offered, where services are offered, and who receives services.
  - Continuity of care is often disrupted during transitions among providers.
  - There are not sufficient mechanisms in place to assure the use of evidence-based treatments or the monitoring of treatment effectiveness.
  - Family members have difficulty obtaining adequate mental health treatment.
3. Providing sufficient resources and allocating them according to requirements:
  - The military system does not have enough fiscal or personnel resources to adequately support the psychological health of service members and their families.
  - Military treatment facilities lack the resources to provide a full continuum of psychological health care services for active duty service members and their families.
  - The number of active duty mental health professionals is insufficient and likely to decrease without substantial intervention.
  - The TRICARE network benefit for psychological health is hindered by fragmented rules and policies, inadequate oversight, and insufficient reimbursement.

4. Empowering leadership:

- Provision of a continuum of support for psychological health for military members and their families depends on the cooperation of many organizations with different authority structures and funding streams.
- The Task Force found insufficient collaboration among organizations at the installation, Service and Department of Defense levels to provide and coordinate care for the psychological health of service members and their families. (DODTFMH, 2007, ES-3)

Based upon the noted barriers to achieving the Task Force vision, the following recommendations were made for the success of each vision goal:

1. Building a culture of support for psychological health:

- Dispel stigma.
- Make mental health professionals easily accessible.
- Embed psychological health training throughout military life.
- Revise military policies to reflect current knowledge about psychological health.
- Make psychological assessment procedures an effective, efficient, and normal part of military life.

2. Ensuring a full continuum of excellent care for service members and their families:

- Make prevention, early intervention, and treatment universally available.
- Maintain continuity of care across transitions.
- Ensure high-quality care.
- Provide family members with access to excellent care.

3. Providing sufficient resources and allocating them according to requirements:

- Provide adequate resources for mental health services.
- Allocate staff according to need.
- Ensure an adequate supply of military providers.
- Ensure TRICARE networks fulfill beneficiaries' mental health needs.

4. Empowering leadership:

- Establish visible leadership and advocacy for psychological health.
- Formalize collaboration at the installation, Service and Department of Defense levels to coordinate care for the psychological health of military service members. (DODTFMH, 2007, ES-4)

The conclusion of the Task Force was, that the psychological needs of those that rely on the military health system poses “a daunting and growing challenge to the Department of Defense” (DODTFMH, 2007, ES-4). The Task Force went on to state, “the immediacy of these needs imparts a sense of urgency to this report. As such, the Task Force urges the Department of Defense to adopt a similar sense of urgency in rapidly developing and implementing a plan of action” (DODTFMH, 2007, ES-4).

The RAND Center for Military Health Policy Research

The RAND Corporation published an April 2008 500 page study entitled *Invisible Wounds-Mental Health and Cognitive Care Needs of America's Returning Veterans* that mirrored many of the findings of the DoD report. The study was conducted independent of the DoD and the VA and was the first of its kind to take a broad societal perspective (RAND, 2007, 2). The study focused on PTSD, major depression and traumatic brain injury (TBI). TBI is trauma to the brain that is a result of combat action. Sometimes it is a result of a visible head wound, but is often related to the non-visible overpressure blast of an IED (Improvised Explosive Device). Much is unknown about TBI, and research is ongoing. For the purpose of this thesis focus and subsequent literature review, TBI will not be examined in depth, but it is recognized as an emerging medical condition that is sometimes co-morbid with PTSD.

The RAND study sought to answer the following three questions:

1. Prevalence: What are the rates of mental health and cognitive conditions that troops face when returning from deployment to Afghanistan and Iraq?
2. The care system: What programs and services exist to meet the health care needs of returning troops with PTSD, major depression, or TBI? Where are the gaps in programs and services? What step can be taken to close the gaps?

3. Costs: What are the societal costs of these conditions? How much would it cost to deliver high-quality care to all who need it? (RAND, 2008, 2)

Based on RAND survey data for 1, 965 returning veterans of Afghanistan and Iraq, the prevalence was found to be 18.5% of all returning service members as either meeting the criteria for PTSD or depression. 14% met the criteria exclusively for PTSD (no depression) and 14% met the criteria exclusively for depression (no PTSD). 7% met the criteria for a mental health problem (either PTSD or depression) and TBI. 19.5% reported a possible TBI during deployment. Based on the assumption that these findings are representative of the total OEF/OIF veteran population (1.64 million), it is estimated that 300,000 veterans are suffering from PTSD or major depression and 320,000 may have experienced a TBI during deployment (RAND, 2008, 2)

In terms of health care, RAND found that only about 53% of those veterans that report symptoms of PTSD or major depression actually seek treatment. Of those that sought care, just over half received “minimally adequate treatment” (RAND, 2008, xxi). The barriers to those seeking care were similar to the DoD study, fear that the treatment would not be kept confidential, and that it would damage their careers. About 45% were concerned about the possible side effects of drugs related to the mental health treatment and about 25% believed even good mental health care was not very effective (RAND, 2008, xxii)

The study identified substantial costs or consequences associated with untreated PTSD, major depression or TBI and their impact upon employment, and interpersonal relationships. Substance abuse, homelessness, and suicide are just some of the negative effects identified. RAND also stated that untreated individuals were more likely to

smoke, overeat, have unsafe sex and they tend to have poorer health and higher rates of mortality. From a pure economic standpoint, an annual individual cost was analyzed for veterans returning from combat. For PTSD the two-year cost ranges from \$5,904 to \$10,298 depending on whether suicides are taken into account (RAND, 2008, xxiii). The study states Major Depression is \$15, 461 to \$25, 757 and when PTSD is co-morbid, the costs range from \$12, 427 to \$16, 884. When the 1.6 million troops that have deployed since 1991 is factored in, the two year cost estimate is \$4.0 to \$6.2 billion (RAND, 2008, xxiii). 55% to 95% of the costs are attributed to reduced productivity from PTSD or major depression.

The conclusion of the RAND study, was that the mental health issues of veterans is wide spread and will be the primary health concern for an otherwise young and healthy population for years to come. Of further concern is that the problems associated with PTSD, major depression and TBI are not fully understood. To address these issues, RAND made the four recommendations:

1. Increase the cadre of providers who are trained and certified to deliver proven (evidence-based) care, so that capacity is adequate for current and future needs.
2. Change policies to encourage active duty personnel and veterans to seek needed care.
3. Deliver proven, evidence-based care to service members and veterans whenever and wherever services are provided.
4. Invest in research to close information gaps and plan effectively (RAND, 2008, xxx).

The RAND study and the DoD study agree that there are not enough mental health providers to meet the current demand and that existing mental health care when it

is provided, is inadequate. Veterans will continue to avoid treatment until policies are changed that will encourage seeking treatment.

### Conclusion

There is extensive research in the field of PTSD (though not TBI). However, research pertaining to military officers is almost non-existent. Thus, the purpose of this thesis is to help add to the body of knowledge concerning military officers and PTSD. In the history of CGSC, there has never been a thesis conducted on PTSD. Hopefully, this thesis will form the basis for future researchers to build upon the knowledge of this emerging field. As noted in the RAND and DoD studies, PTSD is not that well understood not only in society but also within the medical community. It is essential that all military members, their families, and the communities in which they live, have an understanding about PTSD. Just as the DoD report called for the empowering of mental health leaders, military leaders are key in creating the favorable environment needed for those to seek mental health care. If CGSC students can learn this message, they can make a difference in their future along with the military's.

## CHAPTER 3

### RESEARCH METHODOLOGY

#### Background and Risks

The sensitivity in dealing with the emotionally charged topic of PTSD has raised legitimate participant risk concerns between the CGSC Graduate Degree Program (GDP) and the Army Research Institute (ARI). The GDP lacked academic expertise in the field of PTSD, and thus sought guidance from ARI. The ARI operates the Army Personnel Survey Program (APSP), which has a mission to “Provide technical advisory service on conducting surveys and studies, and provide information on surveys and survey results”.

The chief concern of the GDP and echoed by the ARI, was whether a PTSD survey of combat veterans could be psychologically harmful. Would it evoke powerful emotions or negative memories? What are the risks? Do the benefits substantially outweigh the risks? These are understandable concerns from academic institutions charged with the well-being of all research participants. Let us examine the risks.

Extensive research shows there is a correlation between PTSD and suicide (Hudenko 2007). In addition, 90% of all suicide victims have a significant psychiatric illness, which is often undiagnosed and untreated (Hudenko 2007). Therefore, the risk involved in an individual not knowing they have PTSD, and not seeking treatment, is possible suicide. This is an extreme risk given the severity of the outcome. Given the large number of combat veterans at CGSC, it is a very real possibility that suicide is being contemplated by a number of CGSC students.

The British Psychological Society recognizes that risk exists in all facets of our lives, along with psychological research. They based the definition of undue risk upon

the levels of risks that individuals engage in their normal lifestyle. If the research exceeds the level of risk a person is normally involved in, it is undue risk. The population of CGSC students sought for research study are combat veterans. There is a very strong possibility, that upon graduation, they will re-deploy to a combat environment. Combat, by its very nature, involves the risk of injury or death. As members of the Armed Forces, CGSC students engage in combat voluntarily. An officer at this stage of their career, has no mandatory service obligation. They can resign their commission at any point, and leave the service.

#### Participant Consent

The intended research in support of this thesis is voluntary in nature. It is presented in an implied consent format. That is to say, after reading the description of the intended voluntary research, a participant proceeds at their own risk and can terminate the research at any point they choose. This method has been chosen over that of a signed consent form.

In dealing with a signed consent form, there exists the concern that the form can be matched up to the survey research/demographic data that the participant fills out. This may not seem like a rational concern in the academic community, but if an individual is struggling with PTSD symptoms, it is a very real concern. This would have three possible negative outcomes upon the research. One, students may just choose not to participate, thus valuable data is lost and a representative sample is not gathered. Secondly, students participating in the survey may have undue stress that their identities may be revealed, which adds to their risk. Lastly, participating students may not be forthright in their responses if they believed the data could be traced back to them.

The implied consent form for this thesis research appears below.

Consent Form

The CGSC College Degree Program is dedicated to the protection of human subjects participating in research. The following information is provided to you to assist in the decision to participate in this survey research. This is an implied consent form, meaning that you are not signing a release form but instead understand that by reading this form you agree to participate in the research. You may withdraw your participation at any time during the research.

This anonymous participant research is studying the effects of Post Traumatic Stress Disorder (PTSD) and rates of occurrence in OEF and OIF veterans in CGSC Class 08-1 compared with overall rates within DoD. It is a two-part survey. The first part is a 17 question demographic survey for basic data used for correlation purposes. The second part is the PCL-M (PTSD Check List-Military). It consists of 17 questions related to PTSD symptoms rated on a scale of one to five. It does not ask you to recall specific instances of trauma or combat experiences.

If you desire counseling after participation in this research, Munson Army Health Clinic will have counselors available at 624-6771 during duty hours and 624-6000 after duty hours. If you don't make an appointment, you can usually be seen as a walk in within half an hour. Again, your participation in this research is voluntary and anonymous. If you have any questions or concerns about this research, I can be reached at [Richard.l.dixon1@us.army.mil](mailto:Richard.l.dixon1@us.army.mil) or room 4328 of L & C (Staff Group 22A).

### Research Demographics

The consent form described the survey research as consisting of two parts, of which the first section is a demographic questionnaire. This data allows correlations to be drawn through statistical analysis on a number of variables compared with the PCL-M (part two of the survey research). The principle research question of whether or not CGSC student PTSD rates are representative of the DoD rates will be answered through a combination of PCL-M data and what theater in which they served. The secondary question of gender, service and combat theater rates of PTSD will be answered based on that respective data. The question on divorce will answer if the CGSC population mirrors the increase and subsequent drop in the officer divorce rate. By asking the participant to indicate the year in which the divorce took place.

A number of other variables have been listed for possible analysis in this research or for possible follow on research. Myers Briggs Type Indicator (MBTI) profiles, combat awards, and Reserve or National Guard service , are all noted topics for PTSD research. Appendix C contains the Demographic Survey Questionnaire.

### Survey Instrument

The “PTSD Checklist-Military Version” (PCL-M) was selected as the assessment instrument. The PTSD checklist consists of 17 questions on a five point Likert scale, which correspond to the DSM-III-R symptoms of PTSD (see Appendix A). There is the PCL-C (Civilian version) as well as the PCL-M. The reliability evidence is considered very good for both (Weathers 2006) and the instruments have been in existence since 1991. The PCL-M is a “self-report” instrument (Blanchard 1996), meaning it does not require a clinician to administer it and monitor the participant. Due to its minimal risk as

a PTSD assessment instrument, it has even been administered over the telephone (Manguno-Mire et al. 2007).

Staff psychologist, Dr. Paula Timmons of the Eastern Kansas VA Hospital was consulted on the level of risk in administering the PCL-M to CGSC students. She and her colleagues are of the professional opinion that administering the PCL-M would be a low risk undertaking. Appendix B contains a memorandum signed by Dr Timmons and her fellow psychologists.

The PCL-M can be scored two different ways. The first, is to simply add up the circled Likert numbers for a total score (range is 17-85). A cutoff score of 50 is considered a good predictor of a PTSD diagnosis (Weathers 1993). This number was originally derived in the testing of Vietnam veterans, but still proves to be a good indicator.

### Research Design

The primary purpose of this research is to engage CGSC students on the topic of PTSD and determine if their rates reflect those of the greater Army. Therefore, maximum participation is the goal. A smaller, representative sample was not conducted. Instead, an attempt to survey all CGSC combat veterans was attempted. The average staff group size is 15 students. This typically involves one International Military Studies Department (IMSD) student. To maintain homogeneity in the research data, only U.S. service members were surveyed. There are four to five staff groups per section and twenty-three sections in CGSC Class 8-1, for a total of fifty-seven staff groups surveyed.

To maintain anonymity of participants, specific combat veteran students were not targeted. The surveys were delivered to each staff group in a plain manila envelope.

Each envelope contained fifteen surveys and a generic cover letter addressed to the staff group leader. The actual breakdown of combat veterans per staff group was not known when the surveys were distributed. The staff group leader was instructed to return the unmarked manila envelope with the completed and uncompleted surveys to the researcher's inbox. From there the manila envelopes were retrieved and taken to the researcher's residence for data analysis. The following page contains the staff group leader letter included with each manila envelope.

Staff Group Letter

MEMORANDUM FOR CGSS 8-1 Staff Group Leaders, Fort Leavenworth, KS

SUBJECT: MMAS Research Thesis on Post Traumatic Stress Disorder (PTSD)

1. This is a CGSC approved survey for my thesis research. Enclosed in the envelope you will find fifteen double-sided surveys. This is a generic number because it is unknown what the exact composition of combat veterans is per staff group. This is to ensure all responses are anonymous. In the unlikely event that you have more than fifteen classmates that are combat veterans and wish to participate in the voluntary research, check with a neighboring staff group for an extra survey. The surveys are for U.S. Army and all sister service GWOT combat veterans. For research design simplicity, International Students are not to turn in a survey but are certainly welcome to have one if they so desire.
2. Please inform your group about the research and that it is voluntary. Enclosed is an implied consent form (i.e. no signature required) that can either be read to the group or passed around to those wishing to participate. The surveys take less than ten minutes to complete. Upon completion of the surveys, students are encouraged to make a photocopy of the documents before placing them back in the manila envelope.
3. In the unlikely event that a student becomes distressed after completion of this low-risk, self-administered survey, the consent form has the phone number for an on call Mental Health professional at Munson Medical Center.
4. After completed surveys are placed in the unmarked envelope, please return them by C.O.B on the day that you first received them. The envelope is to be dropped off at my inbox for staff group 22A, room 4328 of L & C.

5. Your participation is greatly appreciated. I can be reached at [author's phone number] or [author's email] if you have any questions.

Sincerely,

RICHARD L. DIXON, JR.  
MAJ, CA  
Section 22 Leader

## CHAPTER 4

### ANALYSIS

#### Demographics

Participation in the demographic questionnaire and PCL-M was significant enough for a representative sample of the target population. The target population consisted of 584 combat veterans. Thirty-eight of the fifty-two staff groups returned surveys, for a total of 313 respondents. Sixteen of the surveys were not used due to participants that were not OEF/OIF combat veterans, leaving a total of 297 surveys for analysis, or 51% (50.85) of the target population (see Table 3). It is important to note that 800 surveys were distributed to cover all staff groups, not knowing which staff groups had combat participants. This ensured anonymous responses, but also allowed non-combat veterans (despite the instructions) to participate.

Total Pop.	Target Pop.	Total Sample	Valid Sample	% of target Pop.
800	584	313	297	51

Table 1. Survey Population

The population consisted of 261 males, and 17 females. Females represented approximately 6% (5.723) of the population. 19 respondents left the gender question blank. Given the fact that the gender question was number one on the demographic survey, the likelihood of an accidental omission is extremely unlikely. The more

probable explanation is that the gender question was intentionally left unanswered as a means of ensuring anonymity. This speaks to a level of fear or mistrust that the surveys would somehow be identified to the individual. Only three of the individuals answered with a “3” or higher as defined in the following paragraphs, thus PTSD symptoms do not appear to be correlated with leaving gender blank.

The overwhelming majority of respondents were Army (89%), with 6% in the Air Force, 3% in the Marines, and 2% in the Navy. Reserves (across all services) represented 5% of the overall population and the National Guard was 3% of the population (see Figure 3).

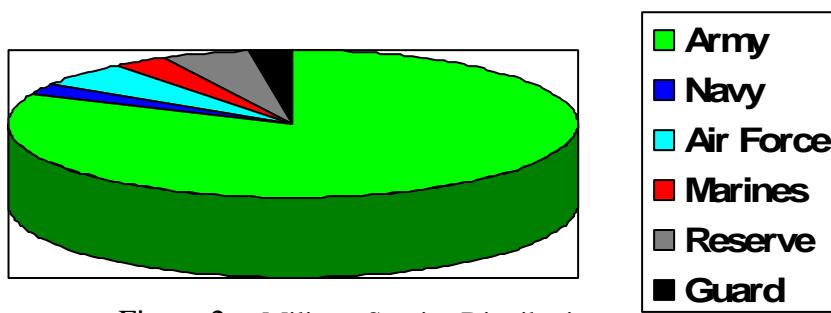


Figure 2. Military Service Distribution

### Primary Research Question

*Are the combat veterans of CGSS Class 08-01 representative of the Army’s statistics on returning veterans with PTSD symptoms?*

The base line percentages used were quoted from a pentagon study (CBS, 2006). 11% of OEF veterans and 19% of OIF veterans were estimated to have mental health issues. For the purposes of this analysis, “mental health issues” were defined as any response of “Moderately” (or a “3”) or higher on the 1 to 5 Likert Scale of the PCL-M (see Table 2).

Not at all (1)	A little bit (2)	Moderately (3)	Quite a bit (4)	Extremely (5)
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Table 2. Likert Scale

A “3” or higher is considered symptomatic (PD Health, 2003) and an indicator of potential mental health issues. Based on this standard, the target group was analyzed as a whole population, and by theater (OEF or OIF). Overall, 41% of the target group indicated “Moderately” on at least one question of the PCL-M. The OEF veterans had a rate of 35% and the OIF veterans had a rate of 41%. This surpasses the Pentagon’s study, and shows a greater incidence of PTSD related symptoms among the target group at CGSC (see Figure 3). The percentages accurately reflect the current estimates of 20% to 40% of returning veterans needing mental health treatment (Tyson, 2007).

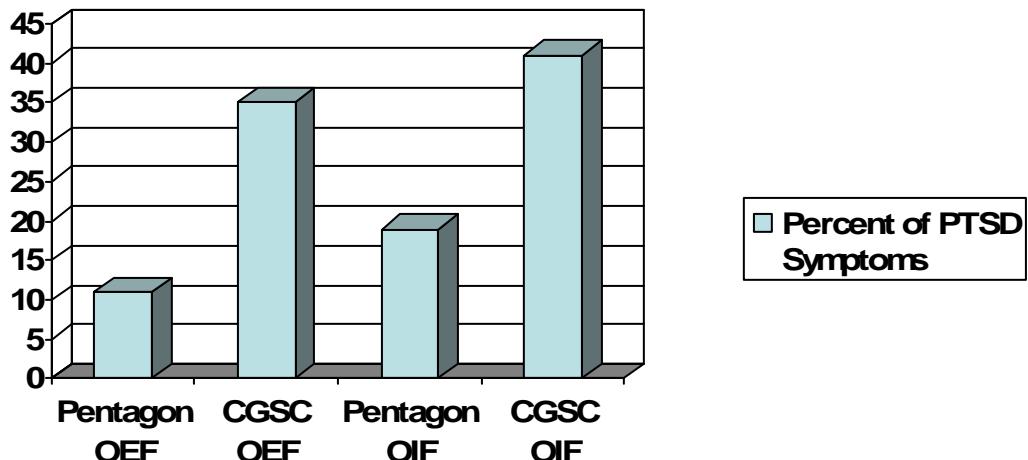


Figure 3. Pentagon/CGSC PTSD Type Symptom Rate Comparison

An attempt to correlate PTSD related symptoms and close combat was made by using the metric of whether or not an individual had a combat related badge. On the demographic survey, respondents were asked if they had received either of the following awards: The Combat Infantry Badge (CIB), the Combat Action Badge (CAB), the Combat Medic Badge (CMB) and the Combat Action Ribbon (CAR). The CIB, CAB, and CMB are Army awards. The CAR is a Navy/Marine award and is actually a ribbon. For the purposes of simplicity, it will be referred to as a combat badge. There is no corresponding award for the Air Force, however the CAB is authorized to qualified individuals in other U.S. Forces (U.S. Army, 2005).

Analyzing the overall populations (non-PTSD symptom respondents included) by theater, 50% of OEF veterans had a combat badge and 58% of OIF veterans had a combat badge. When the numbers are analyzed by the metric of “mental health issues”, 22% of the OEF vets have combat badges and 48% of OIF vets have combat badges.

The percentages represent quite a difference between the two theaters in terms of PTSD type symptoms. Approximately one out of two officers in each theater was in close combat, but only one out of five in OEF have PTSD type symptoms, and almost one in two in OIF have PTSD type symptoms (see Figure 4).

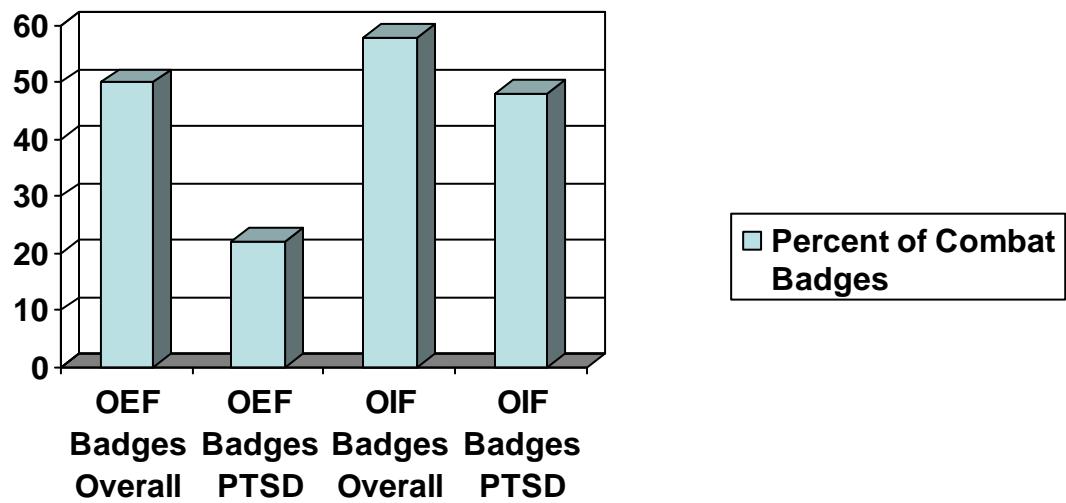


Figure 4. Combat Badge Distribution Overall Population and PTSD Type Symptoms

Why the dramatic difference between theaters? Are troops in OIF experiencing more traumatic events than OEF? As of 22 February 2008, there have been 3,963 deaths of U.S. Personnel in OIF and 479 in OEF (Defense Link, 2008). It may be the nature of the mostly urban battlefield that hostilities are greater in OIF. In hindsight, it would have been beneficial to ask on the Demographic survey if the respondent knew someone that was killed or seriously wounded during the duration of the deployment, or if they themselves had a close call with death. In order to get the survey approved, the intent

was to ask less intrusive questions that might otherwise elicit an emotional reaction in the respondents.

The other possibility is that of a disparity in which soldiers in OEF and OIF have been awarded badges. Perhaps using combat badges as a metric to measure PTSD type symptoms was skewed by the introduction of the CAB. The CAB is a new badge, having only been introduced in 2005 (U.S. Army, 2005). It opened up the opportunity for soldiers outside of the Special Forces, Infantry, and medical community to earn a combat badge. As with any new award, varying standards and interpretations evolve over who meets the qualification criteria. Through the sheer number of personnel outside of the Special Forces, Infantry and medical profession, it is no surprise that CABs (69) outnumbered the CIB (36), the CAR (8) and the CMB (3) in the target population (see Figure 5).

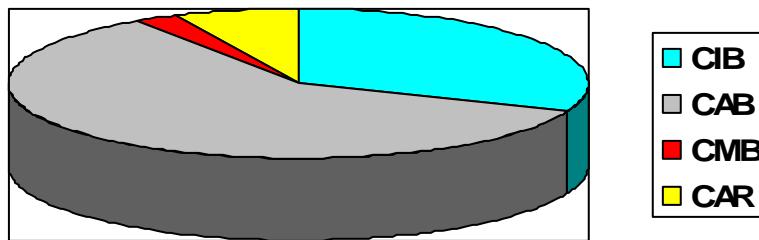


Figure 5. Combat Badge Distribution by Type

The next logical question was to break down the specific combat badges according to the mental health problems metric (see Figure 6 ).

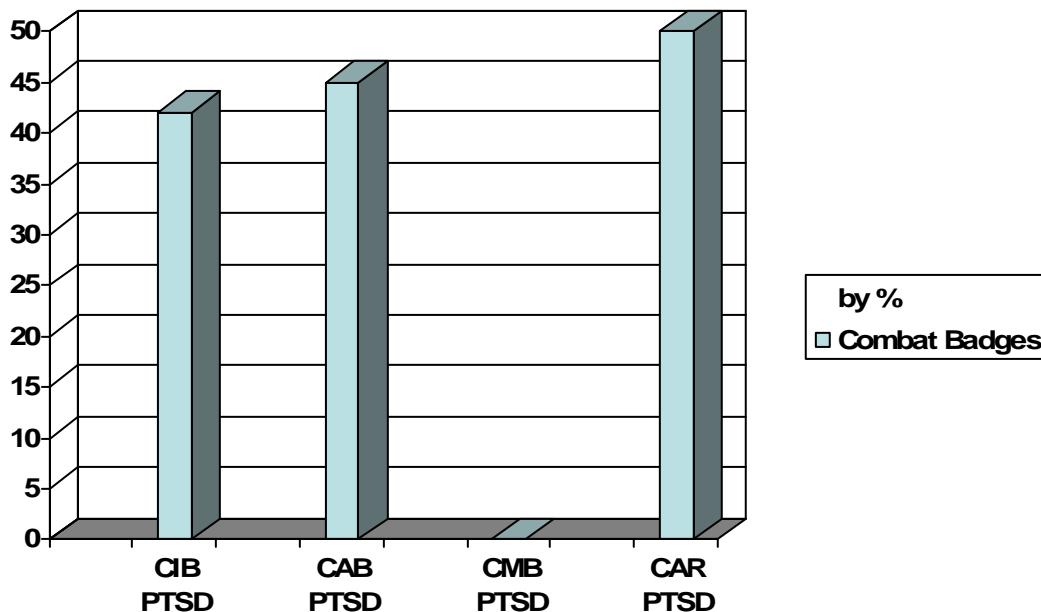


Figure 6. Combat Badge Distribution by PTSD Type Symptoms

The percentage of those with PTSD type symptoms that also were CIB recipients was 42 % (41.6). The percentage for CABs was 45% (44.9). The percentage for CARs was 50%. There were no CMBs awarded to individuals that had PTSD type symptoms. With approximately one in two individuals having a combat badge for actions involving engagement with the enemy, and those individuals having PTSD symptoms, it is a reasonable conclusion that combat badges (CIB, CAB, and CAR) are a good metric for PTSD symptoms. The CMB is awarded to those individuals that satisfactorily perform their duties while their unit is engaged in ground combat and under fire (U.S. Army, 2005). Could it be that the act of caring for others through the use of learned medical skills actually lessens the possibility of developing PTSD symptoms? It is a good question, since the feeling of helplessness is often associated with PTSD type symptoms.

With only a sample size of three individuals, it is not possible to draw any substantive conclusions.

A special subcategory of respondents was identified in this study; the combat wounded. Though only 3% (2.69) of the population, their unique status warranted further analysis. Because of the small population size there is a risk of respondents being identified. Thus, their demographics will only be discussed at a level that precludes identifying them. 88% had been awarded a combat badge. Why the number is not 100% might be an attempt by individuals to conceal their identity. There were also instances of gender not being identified. 63% were identified as having answered a “3” or higher on the PCL-M. Of that PTSD type symptom group, 60% of the population met the scoring requirements of the PCL-M for a probable diagnosis of PTSD. The first means of scoring is adding up all of the respondents answers on the Likert scale (a range of 17 to 85). A total score of 50 is considered the cut off for a probable diagnosis of combat related PTSD (ISTSS, 2008). The second means of scoring is using the DSM IV criteria of PTSD and looking for: 1) At least one response of “3” or higher on questions one through five, 2) At least three responses of a “3” or higher on questions six through twelve, 3) A minimum of two responses of a “3” or higher on questions thirteen through seventeen (ISTSS, 2008). The respondents met the criteria on both scoring methods.

In addition to answering the primary research question and discerning a correlation between PTSD symptoms and combat badges, there was also an interest in how the target population felt about mental health counseling. On the demographic survey respondents were asked: Do you believe mental health counseling will harm your security clearance? Of the 313 respondents (including 16 non-combat veterans), ten chose

not to answer the question for a total of 303 responses. 153 answered “yes” that mental health counseling would harm their security clearances and 149 answered “no”. An almost even split of 51% (50.49) believed mental health counseling was damaging to security clearances. There was no statistically significant difference when adjusted for the non-combat veterans. The responses were 150 “yes” and 142 “no” for a total of 51% (51.36).

With such an even split on opinions, the question of whether or not a significant correlation existed between an individual’s counseling view and their PTSD symptoms was analyzed. Of the 115 respondents that answered a “3” or higher on the PCL-M and answered the counseling question, an overwhelming 70% (70.43) felt that counseling would harm their security clearance (see Figure 7). This is a significant result. When applied to the category of the combat wounded, 75% felt mental health counseling was harmful to their security clearance. Of the combat wounded that met the criteria for a probable PTSD diagnosis, 100% felt that counseling would harm their clearances. This is a very disturbing finding. The individual that is most likely in need of counseling, is the one that is most likely avoiding counseling.

Untreated PTSD becomes more ingrained and less responsive to treatment (O’Dell, 2007). Not to mention it seriously degrades the quality of life for the untreated individual and for the family and friends that are close to them. If the majority of combat veteran field grade officers identified in this study feel counseling is damaging to their security clearances, and those officers most in need of counseling shun treatment, what is the impact on the noncommissioned officers and soldiers and marines those officers lead? It is no surprise that the Army is currently facing its highest suicide rate since 1990 with

102 confirmed suicides in 2006 and 89 in 2007 with 32 cases still pending (Lorge, 2008).

The Army lists “strained relationships” as the most common cause for suicide and found post traumatic stress to be unusual as a direct cause of suicide (Lorge, 2008). If service members are unwilling to seek counseling for PTSD, why would they seek counseling for suicide or marital issues?

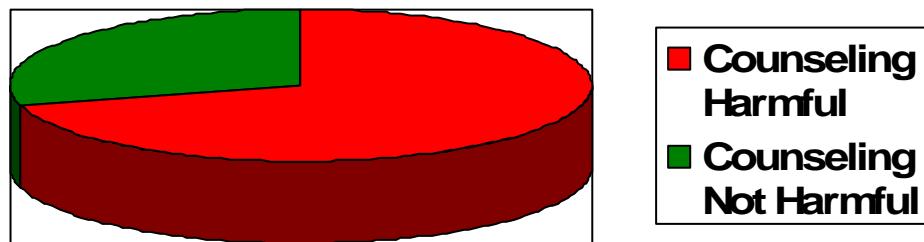


Figure 7. Mental Health Counseling Preference

#### Secondary Research Question Number One

*Do CGSS students with multiple combat tours have higher rates of PTSD symptoms compared with students with only one combat tour?*

Army research has found that soldiers serving repeated Iraq deployments are 50% more likely to suffer from acute combat stress (Tyson, 2006). The Mental Health Advisory Team IV reported that soldiers/marines on their second, third or fourth tours were screening positive for mental health issues 27% of the time compared with the rate of 17% for first time tour veterans (Kennedy, 2007). In the target group analysis, it was found that 41% of those that had served multiple combat tours had PTSD type symptoms. This is the same rate for OIF veterans with PTSD type symptoms compared to 35% for OEF veterans (see Figure 8).

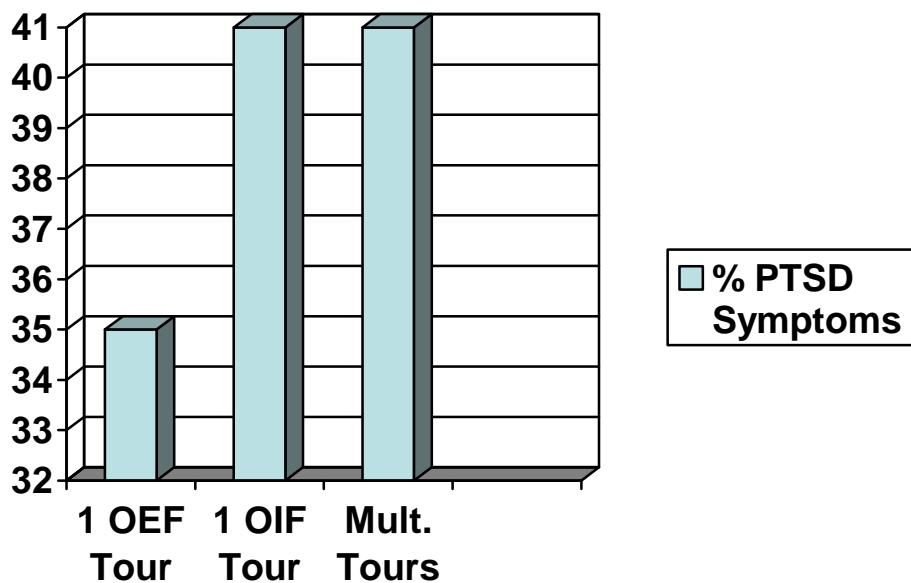


Figure 8. Multiple versus Single Combat Tour and PTSD Type Symptoms

Of the target population, 9% have their only (one tour) deployment in OEF. 49% have their only deployment tour in OIF. 41% have multiple tours in either one or both theaters (see Figure 9).

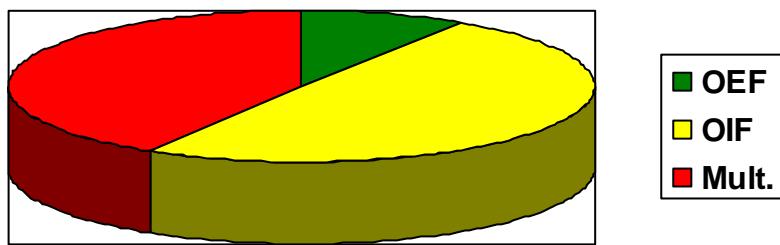


Figure 9. PTSD Type Symptoms by Theater

Logically, one would expect those individuals with multiple tours to have the highest rates of PTSD type symptoms, and yet the percentage is the same for single OIF

tours. Part of the difference may lie in the fact that there is such a broad range of time periods associated with tour length. Individuals can serve anywhere from two months to twenty-four straight months and beyond. Some individuals have four tours, but each tour consisted of four months each. Then there is the question of dwell time; the time spent home between deployments. Though not a part of this survey, dwell time differs considerably from one person to the next and would have been a good question to include on the demographic survey.

Across the entire target group, less than 4% (3.73) had PCL-M scores of 45 or more. Of that subgroup, 46% (45.5) had single OIF tours and 46% (45.5) had multiple tours. 9% (9.1) had a single OEF tour. Once again, the numeric distribution pointed to equity between a single OIF tour and multiple tours. When an average was taken for each of the three variables, OEF had an average of 49, OIF had 58.2 and multiple tours had 52.4 (see Figure 10). The entire population range went from a 47 to 66. The average tour length for OEF was 7-11 months. OIF was 12-16 months and multiple tours also averaged 12-16 months. Once again, it would have been beneficial to know the amount of dwell time on the multiple tours to see if that had any bearing on the scores.

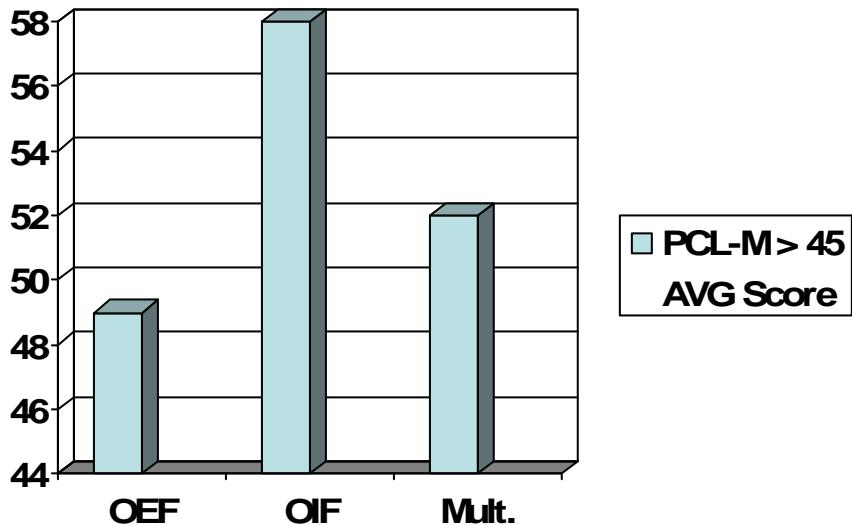


Figure 10. PTSD Checklist-Military version Score Distribution

#### Secondary Research Question Number Two

*What are the CGSS student PTSD type symptom percentage rates by gender, service, and combat theater?*

The overall question of PTSD type percentage rates by theater has been answered (35% OEF and 41% OIF). The overall percentages of gender (6% female and 88% male, 6% unknown) and service (89% Army, 6% Air Force, 3% Marines, 2% Navy, 5% Reserves/National Guard) are also known. The questions remain whether any statistically relevant data exists between gender. Do males have a higher percentage of PTSD type symptoms? What are the rates in both theaters? Does one service have more PTSD type symptoms than another? Does it vary by theater? What about Reservists versus active duty? This section provides analysis of these questions.

Of the 6% of the population that were females, this was the theater distribution: 6% (5.88) OEF, 71% (70.58) OIF, and 24% (23.52) multiple tours (see Figure 11).

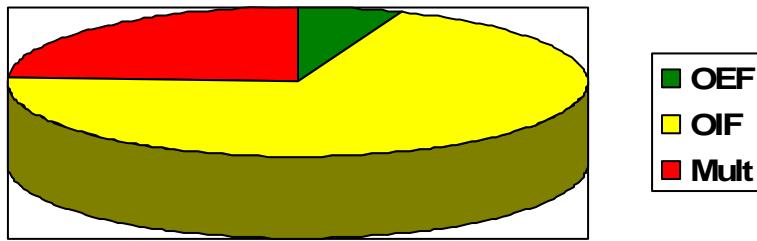


Figure 11. Female Distribution by Theater

Across the total female population, 82% were Army and 18% were Air Force. No other services were represented. There were no Reservists. From the total population, 47% had PTSD type symptoms. Of the PTSD type symptoms population, 13% (12.5) were Air Force and 88% (87.5) were Army. 75% were single tour OIF veterans and 25% were multiple tour veterans. OEF was not represented. Only 25% had combat badges. So, for the overall female population, the vast majority were Army, with almost half having PTSD type symptoms. From those with symptoms, the vast majority had a single OIF tour. With only one in four having a combat badge, it seems to be a less likely indicator among females with PTSD type symptoms.

Of the 88% of the population that indicated they were male, this was the theater distribution: 10% (9.92) OEF, 47% (46.56) OIF, and 44% (43.51) multiple tours (see Figure 12).

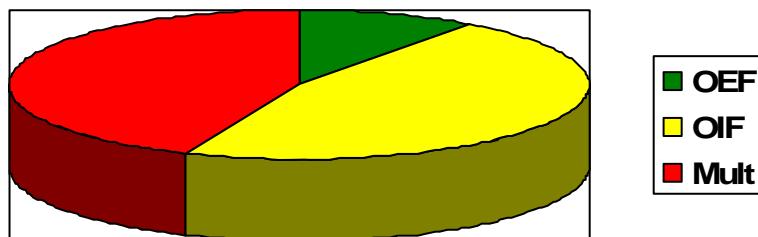


Figure 12. Male Distribution by Theater

Across the total male population, 87% (87.4) were Army, 2% (2.29) were Navy, 6% (6.48) were Air Force, 4% (3.81) were Marines, 6% were Reserves, and 3% (3.05) were National Guard. From the total population, 36% (35.87) had PTSD type symptoms. Of the PTSD type symptoms, 82% (81.9) were Army, 2% (2.12) were Navy, 4% (4.25) Air Force, and 3% (3.19) were Marines. The Reserves represented 3% (3.19) and the National Guard represented 5% (5.31). 49% (48.93) were single tour OIF, 6% (6.38) were single tour OEF and 43% (42.55) were multiple tours. 51% (51.06) had combat badges, validating that combat badges are a good metric for possible PTSD type symptoms.

Strictly along gender lines, males had PTSD type symptoms 36% of the time versus 47% for females. The majority of females (75%) had one OIF tour. Males were more equally distributed between OIF (47%) and multiple tours (44%).

As for the PTSD type symptoms by military service, the Army was 34% (33.62), the Navy was 33%, the Marines were 30%, and the Air Force was 24% (23.52). The Reserves had a rate of 19% (18.75) and the National Guard had 63% (62.5). The dramatic difference between the National Guard and Reserves was an unexpected and puzzling finding. PTSD rates have been unexplainably higher in the Reserves/National Guard when compared to their active duty counterparts and actually increased with age in the Reserves/National Guard (Spollen & Labbate, 2008). It is theorized, that active duty soldiers under report mental health issues for fear of the stigma associated with mental health care, whereas Reservists/National Guard report problems before their active duty health care expires (Spollen & Labbate, 2008). 33% of the National Guard in the survey

population were age 40+. 100% of them had 17-22 years of military service. 100% of the Reservists were 40+ and 60% had 17-22 years of military service. 67% (66.66) of the National Guard had multiple tours. 80% of the Reservists had multiple tours. None of these statistics explain why the Reservists have a much lower percentage than the National Guard.

### Secondary Research Question Number Three

#### *What is the CGSS student divorce rate?*

As mentioned in Chapter One, the officer divorce rate tripled from a rate of 1.9% in 2002, to a rate of 6% in 2004 (MSNBC 2005). The Pentagon reported that the divorce rate for 2007 for the Army was 3.2%, unchanged from 2006 (Associated Press, 2008). In the Demographic Survey used for this research, respondents were asked if they were married and whether they were divorced. This seemed to cause confusion among the respondents in that they saw the answers as mutually exclusive, you are either one or the other. In reality you can have a divorce in your past and be currently married. What was assumed as two simple questions actually needed more clarity in the survey. Perhaps it should have read “Have you ever been married? Have you ever been divorced?” Subsequently, many respondents (16%) left the divorce question blank. Divorce time frames were categorized as either pre-deployment or post-deployment. In retrospect, a year in which the divorce occurred would have been a good question to compare it against divorce rate data.

87% of the survey population indicated they were married. 15% of the population indicated they were divorced. It was an even 50/50 split between pre-deployment and post-deployment. One respondent wrote that the divorce had occurred before the Army

and one wrote that the divorce occurred between deployments. Since the 15% rate is for the total population without a specific year given for each divorce, it is not really possible to do any meaningful analysis regarding pre- and post-deployment divorce rates. At best, it can be inferred that the majority of the divorces are post 9/11.

For comparative purposes, the U.S. divorce rate is at the lowest level since 1970, with a rate of 3.6 per 1,000 people (MSNBC 2007). It peaked at 5.3 in 1981 (MSNBC 2007). The per capita divorce rate is not to be confused with the percentage of marriages that will eventually end in divorce. That is a calculation that is estimated to be 40 to 45 percent (MSNBC 2007).

### Summary

A statistically significant sample population participated in the survey research. It was found that PTSD type symptoms in the target population surpassed the Pentagon percentages by a significant amount: 35 % vs. 11 % for OEF and 41 % vs. 19 % for OIF. The rate of PTSD type symptoms for multiple tours was 41%, which was greater than single OEF tours, but the same as single OIF tours.

Almost half the women surveyed (47%) had PTSD type symptoms compared to 36% of the males with symptoms. The majority of those women had a single OIF tour (75%) and the men were more equally distributed between the two theaters (47% and 44%). Half the population surveyed (50% OEF and 58% OIF) had been awarded some type of combat badge denoting close contact with the enemy. For an all officer population, this is a very telling statistic of the type of conflict we are engaged in, and the magnitude of PTSD type symptoms that may exist across all ranks within the military.

## CHAPTER 5

### CONCLUSIONS AND RECOMMENDATIONS

#### Conclusions

This thesis is based upon existing PTSD type symptoms in returning combat veterans in our society and the reality that its prevalence is greater than previously understood. It also addresses the under representation of military officers in previous PTSD research. It seeks to add to the body of PTSD knowledge through the survey research of field grade officers in Command and General Staff College class 08-01. In doing so, the primary research question was asked:

*Are the combat veterans of CGSC 08-01 representative of the Army's statistics on returning veterans with PTSD type symptoms?*

The Army Pentagon report stated 11% of returning OEF veterans and 19% of returning OIF veterans have mental health issues (CBS News 2006). The survey research conducted for this thesis found that 35% of the CGSC OEF veterans and 41% of the CGSC OIF veterans had PTSD related symptoms or “mental health issues”. Of the entire CGSC population surveyed (both OEF and OIF veterans combined), 41% have PTSD type symptoms. This finding supports a study by the RAND Corporation released in April, found one in five veterans of Afghanistan or Iraq reported symptoms of PTSD (Alvarez 2008). The higher 40% found during this thesis research is consistent with previous research estimates of 20 to 40% of returning veterans needing mental health treatment (Tyson 2007).

In addition to the primary research question, there were also three secondary research questions. The first secondary question:

*Do CGSC students with multiple combat tours have higher rates of PTSD type symptoms compared with students with only one combat tour?*

Mental Health Advisory Team IV in Iraq reported that soldiers/marines with multiple tours were screening positive for mental health issues 27% of the time (Kennedy 2007). Army research has also found that soldiers serving repeated Iraq deployments are 50% more likely to suffer from acute combat stress (Tyson 200). The CGSC survey population with multiple tours (both OEF and OIF) screened positive for PTSD type symptoms 41% of the time. By comparison, the rate was the same (41%) for single tour OIF veterans and 35% for single tour OEF veterans.

The CGSC survey research was conducted in late November of 2007, when most of the students would have been out of a combat environment for several months. The earliest any Class 08-01 students arrived at CGSC was mid July 2007. With the demobilization/redeployment process of the military and block leave to be with family, plus travel time for a Permanent Change of Station (PCS) move to CGSC, it is unlikely any of the students were in a combat environment later than May 2007. June 2007 would be a rare exception.

Acute Combat Stress or Acute Stress Disorder occurs when the onset of the trauma and the resolution of the symptoms occur within four weeks or less (Whitney 2002). According to DSM IV, Acute PTSD symptoms last less than six months, whereas Chronic PTSD symptoms last longer than six months. Delayed Onset PTSD is when

symptoms appear at least six months after the trauma. It is unknown whether the PTSD type symptoms reported by CGSC students are the result of chronic PTSD or Delayed Onset PTSD.

The structuring of the research survey deliberately did not ask respondents to recall traumatic events. This was a safeguard from CGSC's Bulletin 40, which complies with the ethical standards listed in the Belmont Report for research dealing with human participants (Baumann 2007, 26). A study of PTSD type symptom onset and duration would be of great interest to conduct but would require the physical presence of a mental health professional for each respondent.

The second secondary question dealt more with demographics:

*What are the CGSC student PTSD symptom percentage rates by gender, service, and combat theater?*

Of the total female respondents, 47% reported PTSD type symptoms. 88% of them were in the Army and 75% of them were first time OIF veterans. Based on these statistics, a woman has almost a one in two chance of having PTSD type symptoms if she is in the Army and deploys to Iraq. No female veterans of Afghanistan reported any PTSD type symptoms. Only 25% of the females reporting PTSD type symptoms had been awarded a combat badge for close engagement with the enemy. This suggests that the trauma related to their symptoms was something other than close combat.

For the male population, 36% had PTSD type symptoms and 87% were in the Army. There was almost an even split between single tour OIF veterans (49%) and multiple tours (43%). 51% of the males had been awarded a combat badge. Based on

this research, A male soldier with multiple tours and a combat badge has about a 50/50 chance of developing PTSD type symptoms. The National Center on PTSD (NCPTSD) reports that 40% of OEF/OIF veterans have or will develop PTSD. The NCPTSD estimates the lifetime PTSD rate for any combat veteran, non-war specific, at 39% (Friedman 2006).

The Reserve and National Guard population was small (6% and 3% respectively) but the rate of PTSD type symptoms was 19% for reservists and 63% for the National Guard. This could be a statistical anomaly due to the small sample size. It is estimated that more than 40% of Army reservists require mental health treatment (Tyson 2007). According to the RAND Report, “rates of PTSD and major depression were highest among women and reservists” (MSNBC 2008, 2). Military researchers found in 2007 that 25% of reservists had screened positive for symptoms of stress disorder (MSNBC 2008, 1-2).

The third secondary question focused on divorce:

*What is the CGSC student divorce rate?*

With previous Army divorce rates ranging from 1.9% in 2002, to a peak of 6% in 2004, much has been made out of the increased rate (MSNBC 2007, 2). The rate for 2007 is unchanged from 2006 at 3.2% (Associated Press 2008). This thesis research survey did not address a specific year in which a CGSC student was divorced. It only addressed pre and post-deployment time periods. Overall, the population divorce rate is 15%, but that figure covers an unknown period of years. It merely gives the total percentage of divorced students. This is another area in which follow up study could be conducted to

identify the specific year of divorces for comparison against existing data.

An issue raised in the DOD Task Force on Mental Health study, and the RAND study, was addressed in this thesis research survey question:

*Do you believe mental health counseling will harm your security clearance?*

Of the combat veterans that responded, 51% answered “yes” to the question. When the data was adjusted for only those veterans that fit the criteria for having PTSD type symptoms, 70% believed counseling would harm their security clearance. When adjusted for the subpopulation that had been combat wounded, the positive response went to 75%. Of the respondents with PTSD Checklist-Military version (PCL-M ) scores that would result in a probable clinical diagnosis of PTSD (score of 50 or more), 100% felt counseling would harm their security clearance. The fact that the veterans that need counseling the most are the ones that are avoiding it, calls into question any current research data for PTSD prevalence. It is more than likely that PTSD prevalence is under reported. In a recent study, only 53% of veterans with PTSD type symptoms or depression sought treatment, and of those that did, approximately half received “minimally adequate treatment” (RAND 2008).

According to the April 14, 2008 edition of the Army Times, Kelly Kennedy writes, “Post-traumatic stress disorder experts say service members aren’t seeking care, aren’t getting enough time to recover between deployments and aren’t receiving medications or therapies that are known to be effective.” In the case of the CGSC student population, most of them are getting a one-year break between deployments, though a number of students were required to graduate two months early to meet deployment

deadlines. The real problem is that those students with PTSD type symptoms are not seeking mental health care because they feel it will harm their career. The RAND Corporation listed the top five barriers to seeking mental health care:

1. The medications that might help have too many side effects.
2. It could harm my career.
3. I could be denied a security clearance.
4. My family or friends would be more helpful than a mental health professional.
5. My coworkers would have less confidence in me if they found out. (RAND, 3)

These findings are consistent with an earlier DOD study. In June of 2007, the Department of Defense's Task Force on Mental Health cited fear of ridicule and a damaged career as reasons why service members are not acknowledging mental health problems (Yen 2007). The DOD Task Force on Mental Health reported that "building a culture of support for psychological health" was needed and listed the following findings:

- Stigma in the military remains pervasive and often prevents service members from seeking needed care.
- Mental health professionals are not sufficiently accessible to service members.
- Leaders, family members, and medical personnel are insufficiently trained in matters relating to psychological health.
- Some Department of Defense policies, including those related to command notification or self-disclosure of psychological health issues, are overly conservative.
- Existing processes for psychological assessment are insufficient to overcome the stigma inherent in seeking mental health services. (DODTFMH, ES-3)
- 

One of the key recommendations sought for implementation is that questions concerning mental health care history be removed from security clearance questionnaires. According to an April 18, 2008 New York Times article, Colonel (promotable) Loree Sutton, head of the Army's new Defense Center for Excellence for Psychological Health and Traumatic Brain Injury, stated that "Defense Secretary Robert M. Gates is considering removing a question about a service member's health care history from

security clearance questionnaires.” At a June 21, 2007 press conference by Secretary Gates and then Chairman of the Joint Chiefs of Staff General Peter Pace, Secretary Gates stated:

One change I support and will very aggressively pursue is removing the question about mental health treatment from the security clearance questionnaire -- a government-wide form. Too many avoid seeking mental health help because of fear of losing their security clearance.

I've also discussed the stigma issue with the Joint Chiefs of Staff, and I am confident they will provide strong leadership in an effort to overcome this impediment to proper mental health care. Leaders at every level must follow suit. (DOD 2007)

As a matter of federal law, the Department of Defense was required to submit to Congress a corrective action plan within six months addressing the issues found by the DOD Task Force on Mental Health. That deadline would have had to been met in December of 2007. Secretary Gates stated at the press conference, “this department is required by law to provide Congress with a corrective action plan within six months. I have no intention of waiting that long”.

During the compilation of this thesis, Secretary Gates announced on May 1, 2008, a significant change to “Question 21” of the SF 86, Standard Form 86-government security clearance questionnaire (Miles 2008). The question asks whether an applicant has sought mental health care in the last seven years, and a “yes” answer requires the name and address of where the treatment was sought, and a signed release for medical records was required. Now, the question is answered “no” for those that have sought mental health counseling “strictly related to adjustments from service in a military combat environment”. This is a huge step in the right direction for creating the “culture of support for psychological health” called for by the DOD Task Force.

Secretary Gates stated, “The Defense Department has been working with other agencies for eight months to strike a balance that enables troops to get treatment they need and the intelligence community to get the information it needs”. The Secretary went on to say, “It took longer than I would have hoped, but it is done”. It will never be known how many lives could have been saved had this policy been implemented when combat veterans first returned from the GWOT.

#### Relationships to Previous Studies

This thesis has demonstrated validity to previous research in determining PTSD type symptoms in military veterans (specifically, field grade officers) to be within the range of previous 20 to 40% estimates (Tyson 2007). It is important to note that the sample population of all officers is unique in PTSD research. In the recent 2008 RAND report, they estimate one in five returning veterans have mental health issues. Mental Health Advisory Team IV in Iraq found that 27% of multiple tour veterans were screening positive for mental health issues and were 50% more likely to do so in comparison with single tour veterans. The CGSC results found 41% overall of multiple tour veterans had PTSD type symptoms. It is unknown whether the CGSC result is higher because the population sample is all officers or due to some other unknown factor(s). The anonymous nature of the CGSC study and the academic environment may have resulted in more participation and honest disclosure. This thesis also confirmed that PTSD type symptoms are higher in females (47% versus 36%) than males, which was a finding of the RAND Report. The RAND finding that reservists also have higher rates was confirmed in part by the Army National Guard participants in the CGSC study (68%), though it was a small statistical sampling. Additionally, this thesis reaffirmed

what the DOD Task Force on Mental Health and the RAND Report have found, service members are not seeking mental health treatment for fear of damaging their careers. Lastly, this thesis showed an inverse relationship between the degree of PTSD type symptoms and the willingness to seek help.

#### Suggestions for Further Research

There is immense value conducting further PTSD related research with CGSC students. The value is not only to the researcher but to the student as well. Anytime constructive self-awareness and introspection occurs with combat veterans concerning PTSD, positive gains are made. Helping just one person is an immense success. Continued use of the PCL-M as a base line for PTSD type symptoms is recommended.

Suggested PTSD related research topics:

1. National Guard and Reserve PTSD prevalence: Though they are typically a small sample at CGSC, more research needs to be conducted with reservists and National Guard members. Specifically, PTSD type symptoms/prevalence and how they relate to their pre-deployment training, inclusion/exclusion within the active duty environment, post-deployment/demobilization experiences, family support structure, and civilian employment.

2. Females and PTSD prevalence: Only 25% in this thesis study indicated they had received a combat badge, compared with 51% of the males, yet females had higher rates of PTSD type symptoms. Possible areas to explore would be sexual assault, sexual harassment, discrimination, and military occupations/assignments in combat. With the recent policy change allowing married couples to share living quarters in a combat environment, a study determining whether such an arrangement reduces or increases

stress between the couples and how it affects those around them would be ground breaking research. The role of gender and PTSD would also be a topic of interest.

3. Divorce rate within the military: Determining whether it is related to PTSD type symptoms, the refusal to receive counseling, the current operations tempo, the difference between officer and enlisted rates, and an analysis of CGSC students and the specific year of their divorce compared with existing data.

4. The relationship between PTSD and suicide is a significant topic that needs further study in terms of current OEF/OIF veterans and suicide rates. CBS News conducted an investigation based on suicide data for veterans and non-veterans involving 45 of the 50 states (five states did not participate). CBS found that in 2005 alone, there were at least 6,256 veteran suicides, for a break down of 120 suicides a week (Keteyian 2007). What is not known is how many were OEF/OIF veterans.

CBS took the suicide data obtained for 2004 and 2005 and had it analyzed by Dr. Steve Rathburn, acting head of the Epidemiology and Biostatistics Department at the University of Georgia. Dr. Rathburn found that in 2005, veterans were twice more likely to commit suicide than non-veterans (Keteyian 2007, 2). The 2005 suicide rate for non-veterans was 8.9 per 100,000 compared to 18.7 to 20.8 per 100,000 for veterans (Keteyian 2007, 2). The current rate for non-veterans is 8.3 per 100,000 compared with 22.9 to 31.9 per 100,000 (Keteyian 2007, 2). These suicide rates do not take into account the reason the veterans committed suicide and whether it was related to PTSD or any number of other factors. A study needs to be conducted to find if OEF/OIF veterans are more likely to commit suicide than the general population or whether they are consistent with the “veteran” rate.

Dr. Ira Katz, head of the VA's Mental Health has stated "Our suicide prevention coordinators are identifying about 1,000 suicide attempts per month among veterans we see in our medical facilities" (Keteyian 2008). Katz went on to say, there "are about 18 suicides per day among America's 25 million veterans" (Keteyian, 2008, 2). That average works out about 6,570 suicides a year, which is similar to the CBS figure of 6,256 veteran suicides for 2005. The suicide attempts by veterans within the VA treatment system is inclusive for all previous conflicts and those veterans that did not serve in combat. Research is needed to determine how many are OEF/OIF veterans.

5. With the recent Secretary of Defense change in policy regarding mental health counseling and security clearances, possible topics are: whether military culture is changing and more veterans will get counseling, the possible spiked increase in PTSD prevalence if counseling increases, the impact on the military's mental health community and the ability to deal with a large patient influx.

### Summary

Military officers are not immune to PTSD type symptoms. A male Army Officer with a combat tour or tours and a combat badge has about a 50/50 chance of developing PTSD type symptoms. A female Army Officer has about the same 50/50 chance of developing the same symptoms with a single tour in Iraq. Of those that develop symptoms, only about half (53% according to the RAND Report), will seek help, and those with the worst symptoms are the ones most likely not to seek help at all. The primary reason they will not seek help is that they feel it will damage their careers.

Untreated PTSD becomes "more ingrained and less responsive to treatment" (O'Dell 2007). It can lead to failed personal relationships and divorce, career issues,

substance abuse (self-medication), depression and even extreme acts such as suicide or homicide (O'Dell 2007). Military culture and command climates need to change. This change needs to come from the top, down to the lowest levels. The Secretary of Defense's policy change on mental health counseling and the SF 86 is a step in the right direction, and helps in "building a culture of support for psychological health" (DODTFMH 2007). Yet, it takes more than policy to change human behavior. The culture within the military needs to change and that takes bold leadership. It will require the reporting of unfavorable news in order to meet challenges and initiate change, rather than the suppression of it for perceived career gains. It will mean standing up for those that need help and doing the right thing.

The men and women of our U.S. Armed Forces have demonstrated repeatedly their physical courage in their service in harm's way. It is incumbent that these veterans and those in charge of their care demonstrate the moral courage required to help them, rather than wait until it becomes too big to address with current resources or a media story exposes it. General George S. Patton, Jr. said it best:

Moral courage is the most valuable and usually the most absent characteristic in men. I cannot count the times I've seen men who should know better than to keep quiet when unjust decisions are being made, decisions that literally affect the lives of tens of thousands of Soldiers. These decisions are made, not on the basis of sound military policy, but purely to further the political and personal ambition of officers in high command. Cowardice on the battlefield is disgusting enough. Cowardice in the military planning room is repugnant. It ultimately means the unnecessary death, mutilation, and disfigurement of Soldiers for the sake of the commanders. It takes courage to stand up for what is believed to be right and just. Most men seem to lack such courage. Sycophancy for the sake of career is just as deadly as incompetence.

People will always be the heart and soul of our military. Technology, doctrine and tactics changes will come and go, but the American fighting man and woman is what sets the United States apart from all other militaries in the world. The preservation of this

institution and national asset will necessitate a change in how Americans both within and outside the military view PTSD and the importance of mental health counseling and treatment.

## GLOSSARY

Acute PTSD- symptoms (see PTSD) appear within and last less than six months.

ASD- Acute Stress Disorder, first defined in DSM-IV in 1994. ASD occurs when symptoms (see PTSD) appear and are resolved in four weeks or less.

APA-American Psychiatric Association, responsible for the DSM and the creation of the term “PTSD”.

APFRI- the Army Physical Fitness Research Institute, located at the Army War College in Carlisle, PA, they are experts in the health study of 40 year olds and older and use the PCL-M.

Battle Fatigue- the World War II and Korean War era name for what is now known as PTSD. Also referred to as Combat Exhaustion.

CAB- the Combat Action Badge, established in 2005, is awarded to any soldier for satisfactory performance while engaging or being engaged by the enemy. It can also be awarded to members of the other U.S. Armed Forces as well as coalition soldiers.

CAR- the Combat Action Ribbon, established in 1969, is awarded to Navy/Marine and Coast Guard (while operating under the Navy) personnel for satisfactory participation in ground or surface combat.

CBT- Cognitive Behavioral Therapy. Exposure to traumatic thoughts and feelings and the use of positive coping skills lead to the reduction of negative emotional reactions.

CGSC- Command and General Staff College, located at Fort Leavenworth, Kansas. It educates and develops mid level (field grade) military officers in the art and science of the profession of arms.

Chronic PTSD- symptoms (see PTSD) last longer than six months.

CIB- the Combat Infantry Badge, established in 1943, is awarded to Army Infantry or Special Forces personnel for satisfactory performance in active ground combat.

Complex PTSD- Dr. Judith Herman of Harvard University defines it as repeated instances of trauma over a prolonged period such as child abuse or domestic violence. It is not yet included in the DSM.

CMB- the Combat Medic Badge, established in 1945, is awarded to Army Medical personnel for satisfactory performance while under fire in support of a maneuver unit.

COSC- Combat and Operational Stress Control, mental health trained personnel deployed

in Afghanistan and Iraq to assist service members in dealing with combat stress.

CPT- Cognitive Processing Therapy. The VA is transitioning to CPT. It was originally developed for violent crime victims in 1985. It focuses on the trauma incident first rather than the maladaptive behavior as in CBT.

Da Costa's Syndrome- named after Dr. J. M. Da Costa in 1874 to describe PTSD type symptoms in Civil War veterans.

Delayed Onset PTSD- symptoms (see PTSD) appear after at least six months after the traumatic event. When the symptoms last longer than six months, it becomes Delayed-Chronic PTSD.

DoD- the Department of Defense consists of the federal department created in 1947 for the defense of the United States and includes all branches of the U.S. military.

DSM- Diagnostic and Statistical Manual of Mental Disorders, the reference guide for mental health professionals is currently in its fourth edition (DSM-IV) with a new revision in the works.

EMDR- Eye Movement Desensitization and Reprocessing. Developed by Francine Shapiro in 1987. It involves the pairing of cognitive restructuring and hand movement, lights or sounds for the treatment of PTSD.

Exposure Therapy- Often used in CBT, but originally pioneered by Dr. Terence Keane. It involves the careful exposure of traumatic stimuli until it no longer causes anxiety.

Field Grade Officer- a Major, Lieutenant Colonel, or Colonel in the Army, Air Force or Marines. A Lieutenant Commander, Commander, or Captain in the Navy. Though not traditionally used terms by the Air Force and Navy, the term refers to senior officers that are not Generals or Admirals.

GWOT-The Global War on Terror, defined as military actions in response to the September 11, 2001 terrorist attacks on U.S. soil. For the purposes of this thesis, it refers to the military actions in Afghanistan and Iraq.

OEF-Operation Enduring Freedom, the name for combat operations in Afghanistan in support of GWOT.

OIF-Operation Iraqi Freedom, the name for combat operations in Iraq in support of GWOT.

PCL-M- the PTSD Checklist, Military version. Developed in 1991 by Weathers, Huska, and Keane. It has been validated as a proven instrument in assessing PTSD symptoms.

PDHRA- the Post-Deployment Health Re-Assessment is used by the military to gauge

mental health as well as physical health issues after serving in a combat environment.

PICK- Premarital Interpersonal Choices and Knowledge, created by Dr. John Van Epp, is an educational seminar designed to help people choose compatible significant others. It is contracted by the U.S. Army.

Psychotherapy- “talk therapy” pioneered by Sigmund Freud. One on one, group, and family psychotherapy are all used in treating PTSD.

PTSD- Post Traumatic Stress Disorder was the term coined in 1980 in DSM-III, for combat stress seen in Vietnam veterans. It is the result of exposure to an external traumatic event and involves the re-experiencing of the event, avoidance of stimuli related to the event, and increased arousal or hypervigilence.

Shell Shock- the World War I name for what is now called PTSD.

Soldier’s Heart- a U.S. Civil War era diagnosis for what is now known as PTSD. Also known as Soldier’s Melancholy.

SSRI’s- Selective Serotonin Reuptake Inhibitors. The predominant category of medication used to treat PTSD. Commercial names: Prozac, Zoloft, Celexa, Paxil, etc.).

Strong Bonds- created by Dr. John Van Epp, is an educational seminar promoting marital harmony. The U.S. Army contracts it.

TBI- Traumatic Brain Injury. Caused by a head injury sustained in combat, it is frequently the result of the over pressure from an explosion. Often no visible sign of injury is present. Little is known about the condition, but it is sometimes co-morbid with PTSD.

VA- the Department of Veterans Affairs

## APPENDIX A

### PTSD CHECKLIST- MILITARY VERSION

#### PTSD Checklist – Military Version (PCL-M)

Name: \_\_\_\_\_ Unit: \_\_\_\_\_

Best contact number and/or email: \_\_\_\_\_

Deployed location: \_\_\_\_\_

Instructions: Below is a list of problems and complaints that veterans sometimes have in response to a stressful military experience. Please read each one carefully, put an "X" in the box.

		Not at all	A little bit	Moderately	Quite a bit	Extremely
1.	Repeated, disturbing <i>memories, thoughts, or images</i> of a stressful military experience?					
2.	Repeated, disturbing <i>dreams</i> of a stressful military experience?					
3.	Suddenly <i>acting or feeling</i> as if a stressful military experience were <i>happening again</i> (as if you were <i>reliving it</i> )?					
4.	Feeling <i>very upset</i> when <i>something reminded</i> you of a stressful military experience?					
5.	Having <i>physical reactions</i> (e.g., heart pounding, trouble breathing, or sweating) when <i>something reminded</i> you of a stressful military experience?					
6.	Avoid <i>thinking about</i> or <i>talking about</i> a stressful military experience or avoid <i>having feelings</i> related to it?					
7.	Avoid <i>activities</i> or <i>talking about</i> a stressful military experience or avoid <i>having feelings</i> related to it?					
8.	Trouble <i>remembering important parts</i> of a stressful military experience?					
9.	Loss of <i>interest</i> in things that you used to enjoy?					
10.	Feeling <i>distant</i> or <i>cut off</i> from other people?					
11.	Feeling <i>emotionally numb</i> or being unable to have loving feelings for those close to you?					
12.	Feeling as if your <i>future</i> will somehow be <i>cut short</i> ?					
13.	Trouble <i>falling</i> or <i>staying</i> asleep?					
14.	Feeling <i>irritable</i> or having <i>angry outbursts</i> ?					
15.	Having <i>difficulty concentrating</i> ?					
16.	Being " <i>super alert</i> " or <i>watchful on guard</i> ?					
17.	Feeling <i>jumpy</i> or easily <i>startled</i> ?					

Has anyone indicated that you've changed since the stressful military experience? Yes \_\_\_ No \_\_\_

## APPENDIX B

### VETERANS ADMINISTRATION LETTER



#### DEPARTMENT OF VETERANS AFFAIRS VA EASTERN KANSAS HEALTH CARE SYSTEM

Colmery-O'Neil Medical Center  
2200 Gage Boulevard  
Topeka KS 66622-0001

Dwight D. Eisenhower VA Medical Center  
4101 South 4<sup>th</sup> Street Trafficway  
Leavenworth, KS 66048-5029

November 19, 2007

To Whom It May Concern:

The following psychologists, all of whom are familiar with treating combat soldiers with Post-traumatic Stress Disorder at the VA Eastern Kansas Health Care System, are familiar with and have recently reviewed the self-report instrument known as the PTSD Checklist-Military Version.

We understand that MAJ Richard Dixon, USAR, a graduate student at the Command and General Staff College, requests permission to use the PTSD Checklist-Military Version in a proposed study titled, "PTSD Prevalence of OEF/OIF Veterans in CGSC Class 08-01" in order to determine the rate of PTSD symptoms (not a diagnosis of PTSD) among those military officers attending CGSS who have been deployed to Afghanistan and/or Iraq. Research participants would complete the survey anonymously.

In our opinion, those subjects voluntarily and anonymously participating in this research study, who after deciding to participate after proper informed consent, would be at minimal psychological and/or emotional risk by completing the self-report inventory known as the PTSD Checklist-Military Version. We also agree that having a mental health professional immediately available to anyone participating in the study would reduce the risk to subjects to an even greater degree.

Sincerely,

Signature

Pearla Timmons, PhD  
Brandy Ellis, PhD  
Offenbach, PhD  
Sally D. Hass, PhD  
Michael Black, PhD  
Seth Sumner  
P Chas Neal, PhD  
Alicia M. Wender, PhD  
Stephanie A. Lahue, PhD  
Lyman T. Rate, PhD

Printed Name

Paula Timmons, PhD  
Brandy Ellis, PhD  
Stephen G. OFFENBACH, PhD  
Sally D. Hass, Ph.D.  
Michael Black, Ph.D.  
Seth Sumner, PhD  
P CHAS NEAL, PhD  
ALICIA M. WENDER, PhD  
Stephanie A. Lahue, PhD  
LYMAN T. RATE, PhD

APPENDIX C  
DEMOGRAPHIC SURVEY QUESTIONNAIRE

MMAS PTSD Demographic Survey

Please circle one response for each question:

1. Gender: male female
2. Age: 25-29 30-39 40+
3. Highest education level: Bachelor's Master's current grad student Doctorate
4. Military service: Army Navy Air Force Marines
5. Component: Active Reserve National Guard
6. Years of service (active/reserve combined): 5-10 11-16 17-22 23+
7. Married: Yes No
8. Divorced: Yes No
  - 8a. if "Yes" go to question nine
9. When did the divorce occur? Pre-deployment During deployment Post-Deployment
  - 9a. What year? 2002 2003 2004 2005 2006 2007
10. Children? Yes No Expecting
11. Number of OEF deployments: 1 2 3 4 5 6+
12. Number of OIF deployments: 1 2 3 4 5 6+
13. Total number of months OEF deployed: 2-6 7-11 12-16 17-21 22-26 27+
14. Total number of months OIF deployed: 2-6 7-11 12-16 17-21 22-26 27+
15. Combat wounded? Yes No
16. Were you awarded any of the following during OEF/OIF? (Circle all that apply)  
CIB CAB CMB CAR
17. What is your Myers-Briggs (MBTI) profile?

ISTJ ISFJ INFJ INTJ ISTP ISFP INFP INTP

ESTP ESFP ENFP ENTP ESTJ ESFJ ENFJ ENTJ

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